

CONSUMERS' RESEARCH

Bulletin 100 COMPLETE PAGES



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CONSUMERS' RESEARCH



Vol. 21 • No. 1

BULLETIN

January 1948

Off the Editor's Chest

CRITICISM of our national standards of value has made its appearance in certain quarters recently which takes the ground that there are more important aims in life than producing an abundant supply of the products that make for more comfortable daily living—that preoccupation with “things” is to be considered unworthy of an advanced and civilized people. One supercilious Soviet writer who was rather extensively entertained on a brief sight-seeing tour of the United States is reported to have written in one of his native journals on his return:

Doubly dangerous is the imperialism of people who mistake their technical superiority for the heights of human achievement. . . . You cannot measure the culture of a country by the number of automobiles it has. . . . We are quite ready to admit the superiority of the American washing machine, but we firmly decline to deify the washing machine, to bow low before the refrigerator, and to make obeisance to the latest type of fountain pen.

Somewhat the same point of view was voiced by a London housewife who commented in a public opinion poll that Americans “worship the standard of life which provides a car, an electric washer and a refrigerator.”

Is it true that you cannot measure the *culture* of a country by the quality and abundance of the consumers' goods it turns out? At an international educational conference last year, one college professor complained that American war correspondents had been too inclined to judge European culture by the quality of its plumbing. But one may well ask, isn't that one criterion, and an important

one, of Europeans' ability to use the continent's resources successfully to achieve “the good life” for the greatest number of its citizens? Certainly a fine case can be made for the value of efficient plumbing and washing machines which would relieve women from the weary drudgery of washing clothes in primitive fashion at the river's edge, as is still the custom in certain parts of Europe and other sections of the world. The men, no doubt, are pleased to talk about the “higher things” of life because they can relegate to women the job of keeping house and family clean, the task of shopping daily for the family's food supply because lack of first-class refrigeration prevents the purchase of more than one day's stock of perishable food, and the preparation of family meals with cooking equipment that is slow, inefficient, and hard to keep clean compared with our modern kitchen equipment that operates efficiently and quickly on a variety of fuels.

The pain of mind evidenced by the recent Soviet visitor at the esteem in which labor-saving devices, particularly in the field of household appliances, are held in this country is not new. Over a hundred years ago, in the early part of the 19th century, European visitors swarmed over the United States making grand tours which varied from a few months to several years—transportation was slower in those days—and then returned home to write books disparaging what they saw. As one American writer of those days observed, “An affectation of

(Continued on page 20)

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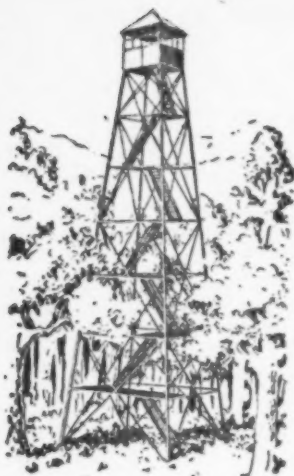
CONSUMERS' RESEARCH BULLETIN, issued monthly by Consumers' Research, Inc. Publication Office, Box 429 Easton, Pa. Address orders and correspondence to Consumers' Research, Washington, N.J. Single copy 30c. Subscription price (12 issues) \$3 per year, U.S.A.; Canada and foreign, \$3.50. For libraries, schools, and colleges, a special subscription of nine monthly BULLETINS (October-June, inclusive) is available at \$2; Canada and foreign, \$2.50.

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The Consumers' Observation Post

RHUBARB contains a small amount of oxalate that has been found to be effective in protecting the teeth against erosion by acids. Researches by Dr. C. M. McCay in the Animal Nutrition Laboratory at Ithaca indicate that rhubarb juice mixed with lemon juice will prevent damage to the enamel of the teeth known to be caused by the latter. The two juices are mixed in proportion of one part rhubarb to four of lemon juice, for effective use. Experiments are now under way to determine just how much rhubarb juice should be taken or how much stewed rhubarb consumed to provide the best protection for the teeth. As the result of this discovery, it is predicted that the bottling of rhubarb juice and canning of rhubarb may become quite a business.

* * *

REMOVAL OF SUPERFLUOUS HAIR by the X-ray method has for some years been known to be potentially dangerous. Convincing evidence of the validity of this position was recently presented in a report to the American Medical Association by Dr. Anthony C. Cipollaro of New York and Dr. Marcus B. Einhorn of Albany. According to this study, there are at least 40 known cases of cancer that have developed five, six, and even as long as twenty years, after the use of X-ray treatments to produce depilation. The doctors' warning is particularly timely for it appears that currently new attempts are being made to push the X-ray method for eliminating unwanted hair.

* * *

SEAMLESS NYLON STOCKINGS have been advertised as 51-gauge or 54-gauge full-fashioned hose by some retailers, according to a complaint made to the Federal Trade Commission by the Hosiery Wholesalers National Association. To put it charitably, only a very ignorant copy writer could be guilty of such an error. From the manufacturing standpoint, there are two types of stockings, one called seamless and the other full-fashioned. The first is knit on a circular bar and has the same number of stitches at the top as at the ankle. The full-fashioned hose are knit flat and shaped at the knee, calf, and ankle by dropping out needles. This narrowing process may be identified by a row of fine dots called "fashion marks." While the new no-seam nylons are a great improvement over the previous circular-knit silk and rayon hose because nylon lends itself to permanent shaping, such hose cannot accurately be called "full-fashioned."

* * *

ORANGES that are ripened in the sun produce juice of better quality that has higher vitamin C content than that obtained from oranges grown in the shade, reports the U. S. Department of Agriculture. Growers are advised to plant orange trees far enough apart so that one tree will not shade the fruit of another.

* * *

PHOSPHORIC ACID, widely used in soft drinks, is known to have harmful effects in that it dissolves calcium from the teeth and bones. Now, it appears from a recent issue of Food Field Reporter, a dry source of phosphoric acid has been developed that will make it easy to produce a powdered beverage by mixing fruit flavors with the new product. The patent (U. S. 2,424,992) suggests that the dry phosphoric acid may also be useful as a filler and acid constituent of baking powders and as an ingredient of self-rising flour formulas. If the new product achieves wide acceptance, the dentists will doubtless find an increase in the number of their patients, and the severity of the damage to teeth from erosion and decay.

HIGH PRICES cannot be checked by the government's anti-trust suits, in the opinion of Federal Trade Commissioner Lowell B. Mason. In a speech before a business group meeting in Chicago, Mr. Mason is reported to have said: "Unless high prices are the result of illegal restraints of trade provable in court, there is nothing that the Department of Justice or the Federal Trade Commission can do about it - unless, of course, you want to go to a police state with bureaucrats setting all price schedules." Many have realized that Attorney General Clark's current anti-trust activities were largely in the nature of window dressing to suggest that government officials are against high prices (even though they have taken many steps to produce price rises); nevertheless it is refreshing to have at least one high government official comment frankly on the futility of the means proposed to bring prices down.

* * *

EVIDENCE of the vital contributions made by meat to bodily health continue to mount. In a study of several hundred epileptic children at the Mayo Clinic, Dr. Haddow M. Keith found that a large proportion of those treated with drugs (dilantin and phenobarbital) and a high-protein diet, with fats, but no sugar or starches, and children who were simply put on the high-protein, no-sugar-or-starch diet, without drugs, were either cured or their condition was improved. In another research project, spleen extract, a substance made from a meat by-product, was found to be helpful in treating cancer.

* * *

RADIO SETS are apparently so plentiful that dealers are beginning to cut prices, for the Chicago Better Business Bureau reports that certain makes have been advertised with a trade-in allowance on old sets. Investigators for the Bureau found that a trade-in allowance of about \$30 was standard no matter what the condition of the old radio, so that the new radio was in effect being sold at a cut rate. The B.B.B. commented that such practices represented "in reality nothing more than a price cut or a reduction from an original, artificially inflated figure." This does not fully characterize the situation, for actually the trade-in allowance is a common way of resorting to competition in pricing, without too openly appearing to do so. Price competition is a good thing for consumers, even though this way of providing it may be misleading or objectionable.

* * *

BABIES can set their own feeding schedule, take as little or as much food as they want, and thrive. Dr. C. Anderson Aldrich and Dr. Edith S. Hewitt of the Mayo Clinic studied some 668 babies on a self-feeding schedule and found that their average height at the age of one year was 29.4 inches and the average weight 21.8 pounds, figures that compared favorably with generally accepted standards. The babies were put on their own as soon as mother and child arrived home from the hospital. The babies were fed as much as they wanted, whenever they seemed hungry. By the end of the first month, 61 out of 100 babies had put themselves on a three-hour schedule; 10 preferred a two-hour schedule; and 26 preferred a four-hour schedule. The remaining three chose other periods between feedings.

* * *

CLINICAL THERMOMETERS are a possible source of infection. According to English physicians writing in the Lancet, each patient in a hospital ward should be supplied with his own thermometer during his stay. The procedure of using one thermometer for several patients and dipping it briefly in sterilizing fluid only a few seconds between successive uses is considered not only unsound but dangerous.

* * *

"SOLIUM," that newly-advertised ingredient of Rinso soap powder is described in Lever Brothers' advertising as "a revolutionary development in the art of soap-making." The company is reported to have spent 10 years and \$1,500,000 on the development. Examination of the new product indicated that the "new," "amazing," "'sunlight' ingredient," is a colorless, fluorescent dye that is fixative on cotton. It gives a blue fluorescence under ultraviolet light (present in natural daylight) which has the effect of counteracting the yellow that develops in such fabrics, especially when they are washed with soap

(The continuation of this section is on page 29)

Men's Leather Gloves

APPPEARANCE, comfort, and durability are the considerations usually thought of when men's gloves are purchased.

Appearance necessarily involves questions of style and suitability, for a fine glove suitable for dress wear would be out of place and impractical for sportswear, for example. For those who can afford only one pair of gloves, a pigskin in a neutral shade has been recommended as a practical selection. Manufacturers report that the slip-on style (without a button) is at this time the most popular men's glove.

To be comfortable, gloves must be loose fitting, so they can be slipped on and off without effort. It is better to fit them to the right hand, since the right hand is usually somewhat larger. Gloves which fit too tightly are likely not to provide proper warmth in severe weather; the looser gloves provide an air space which helps insulation and allows better circulation. Loose gloves also make

for easier manipulation of the fingers in driving and for increased durability by lessening the strain on both the seams and leather.

Durability, however, depends on many other things—the durability of the kind of

portant, so as to preserve their hides without marks or blemishes in so far as is possible.

Genuine peccary pigskin is obtained from wild animals, and usually shows scratches and pits. These do not affect the style of the gloves and are said not to affect the wearing qualities of the leather.

An inferior pigskin glove is made from the skin of the carpincho water hog of South America. This animal, which is really a rodent, has a coarser, spongier skin than that of the wild pig, and the grain chips from it more easily. The appearance of the skins, however, is very much like that of the peccary, and only an expert can distinguish one from the other.

Imitation pigskin is usually deerskin, goatskin, or capeskin grained and pricked to resemble pigskin. The simulated bristle holes can be detected by the even spacing of the holes and because the pricks are a little larger than real bristle holes.

For all-purpose general wear,



Brent, fur-lined

leather, how it was tanned and dyed, the workmanship of the gloves, and the care given the gloves by the wearer.

Leathers which are finished on the grain (hair) side of the skin are more resistant to wear than leathers finished on the flesh side. Pigskin and capeskin (South African sheepskin) are familiar examples of leathers finished on the grain side and given a glacé finish. Leather is given a suede finish by buffing applied to the flesh side.

Goats, sheep, and pigs contribute the greatest amount of leather to the glove industry, and the finest skins come from particular species and usually from young animals. Care in raising these animals is im-



Gould's Make, unlined



Hansen, unlined

it is desirable to buy gloves that are washable and will not spot or stiffen from rain or perspiration. Some leather tannages, such as chrome, oil, and formaldehyde, produce leathers



Meyers Make, unlined



Daniel Hays, unlined



Wards, unlined

that are washable. Though the consumer has no way of knowing whether or not a glove is washable unless it is so marked, the following leathers are, as a rule, tanned so as to be washable: pigskin, capeskin, calfskin, grain deerskin, goatskin, chamois, doeskin, and white buckskin. Dry cleaning is required for colored buckskin, kid, lamb (suede or glacé finish), and some mocha.

Some gloves, although the leather has been tanned so as to be washable, still cannot be washed satisfactorily because of their dye. Some dyes are fugitive in water—that is they tend to run when wet. Other dyes “crock,” a term which means that the color rubs off. Gloves may crock on either the inside or the outside, and some glove manufacturers get around this difficulty by leaving the glove white (undyed) on the inside. The gloves listed were tested for both wet and dry crocking.

In cold weather, warmth of the gloves worn is important. Fluffy fur, wool, or lambskin linings help to keep the hands warm. Fur linings are usually of clipped or unclipped rabbit, and are made with the “fall” of the fur going toward the

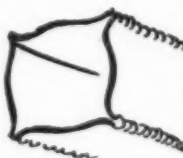
finger tips so the hand will slide into the gloves easily. Usually knitted fourchettes (pieces which make the sides of the fingers) are used to keep the fingers from being so thick as to be clumsy. All the samples tested had lining fourchettes of knitted cotton flannel.



OUTSEAM.

The cut edges are on the outside of the glove, leaving the edges of the fabric showing.

Fine stitches are sewn horizontally through these edges, making a strong seam.



OVERSEAM.

The cut edges are placed together outside the glove as in the outseam, but an over stitch is

used. An attractive seam, and on the samples tested, the usual loss of strength in the use of this seam was judged to have been counteracted by the strength and thickness of the leather.



Fownes, unlined



Pilgrim, unlined

CR's tests included examination of the leathers and tests to determine their flexibility, bursting strength, and fastness to crocking when dry and wet, and also determinations of the effect of cold water on colorfastness and flexibility. The gloves were also examined for workmanship, stitching, and adherence to marked size. The fur-linings of the lined gloves, in addition, were examined and given a bursting strength test. All gloves tested were found poor with respect to dry crocking. Unlined gloves were tan pigskin.

Ratings are cr48.

Unlined Gloves

A. Recommended

Gould's Make (Gould Glove Co., 1214 Arch St., Philadelphia 7) \$4.95. Overseams. Leather, pliable with good feel; slight surface imperfections on each glove. Flexibility and bursting strength, good. Colorfastness to wet crocking and cold water, good. Workmanship and appearance judged very good. Judged the best unlined glove tested.

B. Intermediate

Daniel Hays (Daniel Hays Co., Gloversville, N. Y.) \$4.95. Outseams. Leather, soft and pliable with good feel; imperfections on each glove. Flexibility, fair; bursting strength, good. Colorfastness to wet crock-

ing, fair; to cold water, good. Workmanship and appearance, fair.

Gates, Nomad (Gates Mills, Inc., Johnstown, N. Y.) \$4.95. Overseams. Leather, pliable with slight dry papery feel; minor imperfections on each glove. Flexibility, good; bursting strength, poor. Colorfastness to wet crocking and to cold water, good. Workmanship and appearance, good. Gloves purchased as samples, and sold as a pair, were not well matched in size.

Meyers Make (Meyers Make Inc., 2 Park Ave., New York 6) \$6.95. Outseams. Leather, pliable with good feel; slight surface imperfections on each glove. Flexibility, good; bursting strength, fairly good. Colorfastness to wet crocking and to cold water, good. Workmanship and appearance, fair.

Pilgrim (Sears-Roebuck's Cat. No. 33-2440) \$4.95, plus postage. Outseams. Leather, pliable with good feel; slight imperfections on both gloves. Flexibility, very poor; bursting strength, good. Colorfastness to wet crocking and to cold water, fair. Workmanship and appearance, good.

Ward's (Montgomery Ward's Cat. No. 35-2414) \$4.79, plus postage. Both overseams and outseams. Leather, pliable with good feel; slight surface imperfections on each glove. Flexibility, fair; bursting strength, fairly good. Colorfastness to wet crocking and cold water, good. Workmanship and appearance judged good.

C. Not Recommended

Fownes (Fownes Bros. & Co., 411 Fifth Ave., New York 18) \$5.95. Outseams. Leather, pliable with

good feel; slight imperfections in each glove. Matching of leather, poor. Flexibility, good; bursting strength, fair. Colorfastness to wet crocking, fair; to cold water, good. Workmanship and appearance, fair.



Chesterton, fur-lined



Fownes, fur-lined



Gates, Nomad, unlined



Gates, Swagger Fit, fur-lined



Pilgrim, fur-lined

Hansen (Hansen Glove Corp., Milwaukee) \$6. Outseams. Leather, pliable, but had dry, papery feel; imperfections on both gloves. Flexibility, fair; bursting strength, fair. Colorfastness to wet crocking and to cold water, good. Workmanship and appearance, poor.

Fur-Lined Gloves

A. Recommended

Brent (Montgomery Ward's Cat. No. 35-3548) \$5.89, plus postage. Overseams and outseams. Tan grain finished leather, pliable and soft with good feel. Flexibility of outside leather, poor; bursting strength, very good. Bursting strength of fur lining, fair. Colorfastness to wet crocking, fair; to cold water, good. Workmanship and appearance, good.

Fownes (Fownes Bros. & Co., 411

Fifth Ave., New York 18) \$6.95. Overseams. Dark brown simulated pigskin grain-finished leather with a good feel. Flexibility of outside leather, fair; bursting strength, fairly good. Bursting strength of fur lining, poor. Colorfastness to wet crocking, fair; to cold water, good. Workmanship and appearance, good.

Pilgrim (Sears-Roebuck's Cat. No. 33-2612) \$5.50, plus postage. Overseams. Black grain-finished leather, pliable and soft with good feel. Flexibility of outside leather, very good; bursting strength, fairly good. Bursting strength of fur lining, fair. Colorfastness to wet crocking, fair; to cold water, good. Workmanship and appearance, good.

B. Intermediate

Gates, Swagger Fit (Gates Mills Inc., Johnstown, N. Y.) \$7. Outseams.

Brown grain-finished leather, pliable and soft with good feel. Flexibility of outside leather, poor; bursting strength, fair. Bursting strength of fur lining, good. Colorfastness to wet crocking, poor; to cold water, good. Workmanship and appearance, good.

C. Not Recommended

Chesterton (The Superb Glove Co., Johnstown, N. Y.) \$7.50. Outseams. Black, grain-finished leather, pliable and soft with good feel. Matching of leather, poor. Flexibility of outside leather, poor; bursting strength, poor. Bursting strength of fur lining, good. Colorfastness to wet crocking, poor; to cold water, fair. Workmanship and appearance, fair. Gloves sold as a pair and purchased as samples were not well matched in size.

A Word of Warning to Prospective Buyers of Low-Priced Table-Model FM Receivers and Tuners

Two things consumers need to be on their guard against at this time are FM table-model radio receivers and some so-called FM tuners (or "converters," as one manufacturer incorrectly calls his tuner). Several FM table models so far examined have failed to give the most important advantage which would be sought in FM receivers; namely, *strictly high-fidelity reproduction of music*, since the characteristics of their audio circuit were so poor that they would be unable to make use of high-fidelity reception even if it were afforded by the parts of the circuit up to and including the detector. It is doubtful whether anybody should buy an FM set, table model¹ or otherwise, which has,

for example, a single pentode as an output tube, or a pair of pentodes, or beam-power tubes, in push-pull without feedback, since the advantages of FM broadcasting other than the elimination of static would not be achieved in such a radio. It would be a case of *trading on the reputation of FM for fine tonal quality* without affording the actual advantages of FM in fact.

It is best to buy no FM tuner (or so-called converter) without being sure that it has at least six tubes or five tubes plus a rectifier unit, for it is believed that, at the present time, this is the least number that can be considered to give reasonably good FM reception in a tuner or converter. Sev-

eral manufacturers and many dealers are offering converters or tuners which, although purporting to give the high-fidelity advantages of FM reception, do not do so in fact.

A complete receiver, that is, one that includes an audio amplifying circuit in addition to the parts essential to reception and detection on the FM wave band, will require at least one additional tube beyond the minimum referred to above. A good set will be likely to have not less than 8 to 10 tubes plus a rectifier tube or unit.

¹It must be remembered, however, that no table-model set can give really good fidelity, since there is not sufficient baffle area to permit the speaker to radiate the low frequencies. (This fault brings another, as it requires cutting off of the top frequencies also—since it is necessary that there be a reasonable balance between the upper and lower frequency responses of the speaker in any set. The ear does not tolerate extended high-frequency response when there is a poor or limited response in the bass region.)

A Report on Four Vacuum Cleaners

BECAUSE consumers wish to receive the information promptly on the new vacuum cleaners, Consumers' Research is reporting on the newer models as rapidly as they can be purchased and tested. (Tests of the new *Hoover* tank type and the *Air-Way Sanitizer* (so called) modified tank type cleaners are now in progress, and will be reported soon.) These supplementary reports, naturally, will not necessarily cover the ground as fully as the much longer report that appeared in the March 1947 BULLETIN, and the earlier material will, therefore, need to be read in some cases by readers interested in technical details, in order to provide information regarding



Hoover, Model 28

vacuum cleaner was substantially as good as or better than that of all but the *Singer*, and two *Hoovers*, Models 28 and 61.

The ratings, as previously, are based primarily on *dirt-removing ability*. The weights of the cleaners are weights as used, including hose, nozzle, and cord. Power input as actually measured is shown in parentheses along with the manufacturer's rated power input, thus: 475 (507). All of the cleaners passed the proof-voltage test (900 volts) satisfactorily. Prices of the four new cleaners are not directly comparable with prices in previous listings, as vacuum cleaner prices have been increased in the interim.



Hoover, Model 61

the test methods and the characteristics of the various cleaners in relation to each other.

The tests used were the same as described in the BULLETIN already cited, and included measurements of electrical leakage, proof voltage, radio interference, power input, and dirt-removing ability, as well as an engineering examination. The results are summarized in Figure 1 and in the listings.

The over-all test results indicate that some of today's cleaners are not more efficient than the 1938 *Electrolux*, Model 30 (essentially same as the *Electrolux* cleaner now marketed). Indeed, the performance of this



Singer, Model R-5D

A. Recommended

Electrolux, Model 30 (Electrolux Corp., 500 Fifth Ave., New York 18) \$69.75.

Tank type with runners for pulling along floor. Weight, 20.5 lb. Power input in watts, 475 (507). Motor operates on 110 volts, a.c. or d.c. The cleaning ability of this cleaner was about the equal of the *A-Recommended Hoover, Model 27*, and *Eureka, Model D 272*, previously reported. Leakage current not excessive. Radio interference not ob-

jectionable. Machine was considered well constructed and easily serviced. **2**

Hoover, Model 28 (The Hoover Co., North Canton, Ohio) \$69.95 (attachments extra). Combination revolving-brush and beater type. Weight, 17.6 lb. Power input in watts, 300 (272). Motor rated at 100 to 115 volts d.c. to 45 cycles a.c.; 105 to 120 volts, 46 to 60 cycles a.c. This cleaner, along with *Hoover, Model 61*, showed appreci-

ably better over-all dirt-removing ability than any of the cleaners tested in this series or those reported on in the previous report. Leakage current was slightly excessive under humid conditions (0.50 milliamperes). Radio interference not objectionable; this was an improvement over the *Model 27*. Machine was considered well constructed and easily serviced. **2**

Hoover, Model 61 (The Hoover Co.) \$89.95 (attachments extra). Combination revolving-brush and beater type. Weight, 19.8 lb. Power input in watts, 400 (368). Motor rating the same as for *Hoover, Model 28*. *Model 61* uses a paper-bag dirt collector, attached to the machine exhaust opening by means of a wire clamp; this could either be emptied and re-used (an unstated number of times) or thrown away after use. The paper bag was found to be convenient; it was enclosed during use in a cloth bag with zipper fastening. Leakage current under humid conditions 0.25 ma.,

a trifle above allowable limit. Radio interference not objectionable, and slightly less than from *Hoover, Model 28*. Machine was considered well constructed and easily serviced. In CR's opinion the slightly better dirt-removing ability, the paper-bag dirt filter feature, and the heavier design of this model would not be of such importance for most users as to warrant the additional expenditure necessary over the *Model 28*.

Singer, Model R-5D (The Singer Manufacturing Co., Elizabethport, N.J.) \$79.95 (without attachments). Upright type with revolving brush. Weight, 27 lb. Power input in watts, unstated (3 amperes at 110 volts) (429 high, 304 low position of switch). 110 volts a.d.-d.c. The motor of this machine could be operated at two speeds, the lower speed supposedly being desirable for some uses. Cleaning ability measurements were made at the high position of the switch. On over-all average, about the equal of the *Eureka, Model D 272*, which had the highest dirt-removing ability in the previous series of tests. Used a special cord take-up unit mounted in a casting which was a part of the handle. This feature might at least partially eliminate cord kinking, which is a common trouble with many cleaners, and which often causes a major electrical hazard after long use of the cleaner, unless closely observed and replaced promptly when necessary. Leakage current satisfactory (0.15 ma. maximum). Created objectionable amount of radio interference in both switch positions. Machine was considered well constructed and easily serviced. **3**

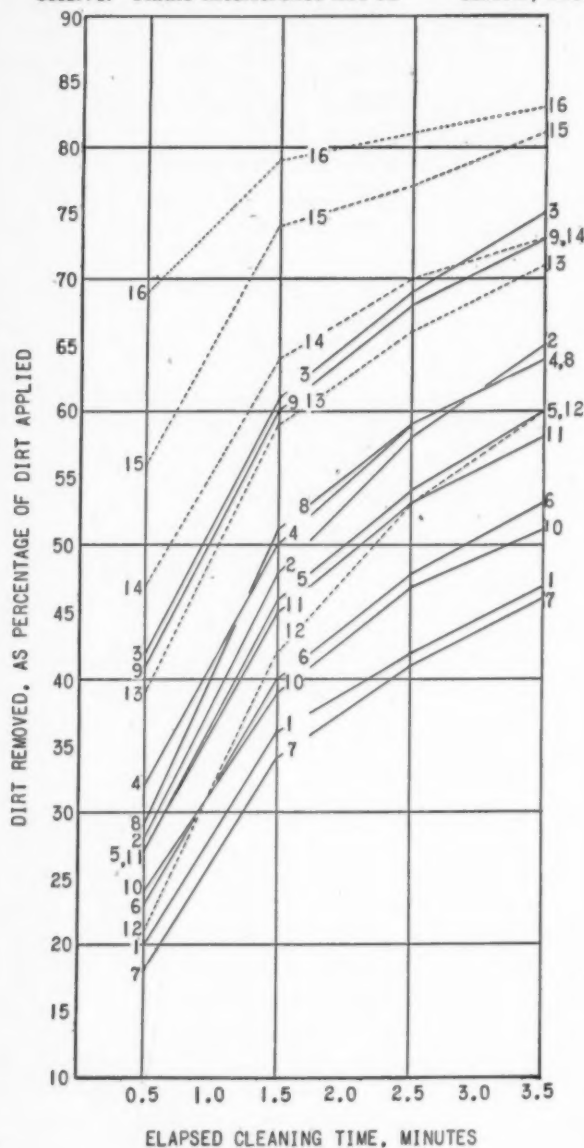


Figure 1

- | | |
|-------------------------------------|------------------------------------|
| 1. <i>Hamilton Beach, Model 14V</i> | 9. <i>Hoover, Model 27</i> |
| 2. <i>Kirby, Model 505</i> | 10. <i>Filter Queen, Model 200</i> |
| 3. <i>Eureka, Model D 272</i> | 11. <i>Vacvac, Model W-100</i> |
| 4. <i>Apex, Model 5-140</i> | 12. <i>Rexair, Model B</i> |
| 5. <i>Electrikbroom, Model 1</i> | 13. <i>Electrolux, Model 30</i> |
| 6. <i>Eureka, Model W-75</i> | 14. <i>Singer, Model R-5D</i> |
| 7. <i>Royal, Model 189</i> | 15. <i>Hoover, Model 28</i> |
| 8. <i>Kenmore, Model 116.9815-1</i> | 16. <i>Hoover, Model 61</i> |

C. Not Recommended

Rexair, Model B (Rexair, Inc., Detroit) \$99.75, including accessories. A tank-type cleaner lacking wheels or runners. Weight, 17.7 lb. including cord and 2 qt. of water in container. Power input in watts, unstated (5.7 amperes at 115 volts) (670). For 115 volts ac-dc operation. A major talking point for this cleaner is its supposed filtering of dirt-laden air before it is discharged into the room by its passage through chambers into which water drops have been injected by an impeller. Effective.

ness as a dust filter did not appear to be significantly better than that of other cleaners for which no special claims in this respect were made. Dirt-removing ability was below average (see accompanying graph, Figure 1). The switch was directly beneath the hose coupling and hence rather difficult to operate when the hose was attached to the air outlet for spraying, etc. Leakage current under humid conditions satisfactory (0.15 ma.). Radio interference not considered objectionable. The fact that water *had* to be used with this cleaner and that it was necessary to clean and dry completely the water pan and separator after use—before storing—combined with the fact that it was recommended that the water pan be stored separately, might in itself make the appliance relatively undesirable where a cleaner is to be used fairly frequently. 3

* * *

For our readers' convenience, brief listings, without details or comments, are appended of the 11 cleaners reported on in the March 1947 BULLETIN.

A. Recommended

Hoover, Model 27 (The Hoover Co.) \$74, including accessories. (Now discontinued.)
Eureka, Model D 272 (Eureka Vacuum Cleaner Co., Detroit) \$76.

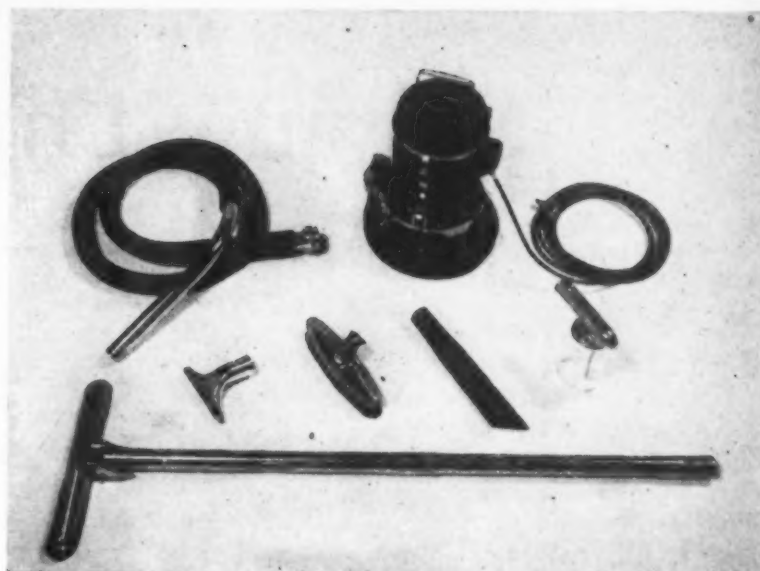
B. Intermediate

Apex, Model 5-140 (The Apex Electrical Mfg. Co., Cleveland) \$59.95.
Kenmore Imperial Automatic, Model 116.9815-1 (Sears, Roebuck & Co.) \$57.75.
Kirby, Model 505 (The Scott & Fetzer Co., Cleveland) \$89.50.

C. Not Recommended

Electrikbroom, Model 1 (The Regina

Corp., Rahway, N.J.) \$39.50.
Hamilton Beach, Model 14V (Hamilton Beach Co., Racine, Wis.) \$39.75.
Eureka, Model W-75 (Eureka Vacuum Cleaner Co.) \$66.50.
Royal, Model 189 (P. A. Geier Co., Cleveland) \$54.50.
Filter Queen, Model 200 (Health-Mor Sanitation System, Inc., Chicago) \$84.50.
Vactric, Model W-100 (Vactric Ltd., Scotland) \$73.12.



Rexair, Model B

An Electric Floor Polisher—A Preliminary Report

PRELIMINARY test results indicate that the *Regina Electric Floor Polisher*, manufactured by the Regina Corp., Rahway, N. J., will probably receive an *A-Recommended* rating. This polisher can be used on either 110 volts a.c. or d.c.,

and lists at \$49.50.

Tests so far completed have included a voltage-break-down test, measurements of electrical leakage, radio interference, polishing effectiveness in polishing both wood and lin-

oleum floors, and an engineering examination. CR considers, on the basis of these test results, that this floor polisher should be entirely adequate for the needs of most small-home owners.

Sewing Thread

GOOD sewing thread is an important item in the sewing cabinet, for any thread which knots and breaks or frays in use wastes time and can even spoil the appearance of work done by an expert. Colored thread that fades either in sunlight or during washing or which bleeds color into the surrounding fabric is likewise undesirable.

Tests done by the Ohio Agricultural Experiment Station, using 15 samples of various types of sewing thread, on cotton, rayon, and wool fabrics, demonstrated that nylon gave the most trouble in hand sewing, through its constant knotting and twisting. This was worst when the nylon thread was used on rayon and least when used on wool. Ordinary cotton thread was the easiest to work with, and mercerized cotton was much more satisfactory than nylon, although it also gave some trouble with knotting and twisting. For machine sewing, all the types of thread tested were found satisfactory, but nylon proved superior for strength of seams, because of its greater stretchability, which provided more "give." Results of the very useful tests made by the Ohio group of investigators may be found in Factors Relating to the Selection of Sewing Thread, Bulletin 649, Ohio Agricultural Experiment Station, Wooster, Ohio, a pamphlet which will

prove of value to all who are interested in thread and its characteristics.

In CR's tests, recently completed, sampling was confined to cotton, since nylon thread was not generally available. Thread from 11 samples (3 spools of each), including both plain and mercerized types in white, black, or navy blue, were tested for breaking strength, shade alteration, and staining of surrounding fabric during washing, and were checked for colorfastness to sunlight. The last test was carried out in a Fade-Ometer; the light exposure was equivalent to approximately 74 hours of summer sunlight in the latitude of Washington, D. C. Yardage per pound was calculated, and all threads were examined for uniformity of twist. All samples were given actual sewing tests under uniform conditions.

None of the colored threads showed any appreciable change of shade after washing, but only the two mercerized samples (one navy blue and one black) showed satisfactory absence of bleeding into the surrounding fabric. No fading occurred in the Fade-Ometer tests.

Federal Specification V-T-276b was used as the basis for judgment on minimum yards per pound and tensile strength. Several samples were heavier (had fewer yards per

pound) than the specification called for, but this was judged to be of no disadvantage to the average home purchaser, who buys by the spool rather than by weight. Note is made in each listing as to whether yardage per pound met Federal Specification requirements, as a matter of general information. The price per 100 yards was calculated for each sample and is noted in parentheses following the price per spool, for convenience of subscribers in estimating relative economy of the various samples.

In the listings, the threads are plain cotton unless otherwise indicated. All samples were purchased in size 50 because this and size 60 are considered the two sizes most used for home sewing. All unmercerized samples were six-cord. Tensile strength of all samples met Federal Specification requirements except as noted, and twist of all samples was found satisfactorily uniform. All samples were found satisfactory in actual use tests.

Ratings are cr48.

A. Recommended

Clark's O.N.T., White (The Clark Thread Co., Newark, N.J.) 100 yd., 4.5c (4.5c). Yardage per lb., satisfactory.

Hall's Best C.M.T., White (The Gardner Hall Jr. Co., Wellington, Conn.) 200 yd., 9c (4.5c). Yardage per lb., satisfactory.

J. & P. Coats Boilfast, Mercerized White (J. & P. Coats, Inc., Pawtucket, R.I.) 70 yd., 4.6c (6.5c). Yardage

per lb. fell considerably short of the Federal Specification requirements. Tensile strength, 2.53 lb.—far above Federal Specification requirements for this size of mercerized thread; second strongest thread tested.

J. & P. Coats Boilfast, Mercerized Black and Navy (J. & P. Coats, Inc.) Black, 70 yd., 4.6c (6.5c); navy, 80 yd., 4.6c (5.7c). The relevant Federal Specification gives no requirements for yardage or tensile strength for black and colored mercerized thread, but the tensile strengths of both samples were much higher than the requirements for white mercerized and for white No. 50 unmercerized thread. Both samples were fast to laundering, showing neither shade alteration nor bleeding.

J. & P. Coats, White (J. & P. Coats,

Inc.) 160 yd., 9c (5.6c). Yardage per lb., satisfactory.

Wards, White (Montgomery Ward's Cat. No. 16—7200) 100 yd., 4.5c (4.5c). Yardage per lb. somewhat short of Federal Specification requirements. Tensile strength, 2.6 lb.—highest of samples tested.

B. Intermediate

Clark's O.N.T., Black (The Clark Thread Co.) 80 yd., 4.5c (5.6c). Yardage per lb., satisfactory. Considerable bleeding of color into surrounding fabric indicated that the thread would not be satisfactory for use with light-colored washable material.

Hall's Best C.M.T., Black (The Gardi-

ner Hall Jr. Co.) 200 yd., 9c (4.5c). Yardage somewhat short of Federal Specification requirements. Considerable bleeding (greatest of samples tested) indicated thread would be unsatisfactory for use with light-colored wash fabric.

J. & P. Coats, Black (J. & P. Coats, Inc.) 160 yd., 9c (5.6c). Yardage per lb., satisfactory. There was appreciable bleeding of color into the surrounding fabric, but it was less than that which occurred with any of the other six-cord black threads tested.

Wards, Black (Montgomery Ward's Cat. No. 16—7200) 150 yd., 4.5c (3c). Yardage somewhat short of Federal Specification requirements. Considerable bleeding occurred during washing.

A High-Fidelity Loud-Speaker

A. Recommended

Western Electric, Model 755A (Distributed by Graybar Electric Co., 420 Lexington Ave., New York 17) \$52.70. Over-all diameter 8½ in., cone diameter 6½ in., weight ¾ lb. Required use of a small enclosure (2 cu. ft. or more). Dimensions of enclosure supplied by maker: 21 in.

high, 16 in. wide; thickness, front to back, 9¼ to 12 in. Baffle opening 7 in. diameter. Single voice coil with impedance of 4 ohms. Frequency response rated at 70 to 13,000 cycles; measured values 100 to 13,000 cycles. Withstood rated 8-watt input, which would be sufficient for most small- and medium-sized rooms,

without any apparent ill effects. Considered an excellent speaker for use in small rooms or apartments where heavy bass response would not be needed or would be objectionable. (Superior bass response requires larger cone, and relatively large cabinet volume—6 cu. ft. or more.) 3

★ ★ Corrections and Emendations to Consumers' Research Bulletins ★ ★

Life" Water Repellent and Conditioner Page 25, Col. 1 June '47

The last sentence of the second paragraph referring to the 19% paraffin wax content, in the analysis, should have given 149°F as the melting point (instead of 149°C).

Dogmaster, a Frankfurter Cooker Page 11 June '47

In column 2, delete the parenthetical comment at end of first complete paragraph and first sentence of the next paragraph, through animals. Delete footnote in column 3 and parenthetical sentence to which it refers, in same column.

A reliable authority on meat processing has informed CR that all frankfurters are cooked during preparation at sufficiently high temperatures to

render them free from danger of trichinae infestation.

Motion Picture Projectors Page 10 Sept. '47

The *Showmaster* (Bell & Howell Co.) is erroneously listed as a sound projector instead of as a silent projector. The statement "quality of sound good" should have appeared in connection with another projector, the *Amprosound Century*, which was tested at the same time.

Motion Picture Cameras Page 9, Col. 3 September '47

Cinemaster II, Model G-8, was erroneously listed as of the fixed-focus type. The f:1.9 *Wollensak* lens with which this camera was equipped was in a focusing mount.

Save Your Money—"hair tonics" cannot save your hair

HAIR "tonics," "restorers," and dressings are again making their appearance after an absence during the war, when many ingredients were in short supply and production was restricted, so far as the tonics and restorers were concerned. Before paying any large sum for a product sold as a hair restorer or tonic, it is well to bear in mind that competent medical authorities are agreed there is no application for the scalp known that has the faculty of increasing the growth of the hair or restoring it once it has departed. Even the foremost journal of the cosmetic industry has admitted that "no preparation now available has more than slight effect, if that, in stopping loss of hair or promoting the growth of new hair." But hope springs eternal, and when some new product makes its appearance with far-reaching and enthusiastic claims of beneficial results from its use, its promoter is likely to do a flourishing business.

In spite of all the advances made by science in the last decade, there are many fields in which human knowledge is still quite limited. The exact cause of baldness, for example, has not been definitely established, except when it follows scalp disease, accidental poisoning, an overdose of X-rays, use of certain drugs, or illness in the course of which patients run a high temperature. Faulty diet has been considered in part responsible for loss of hair. Nerve strain, lack of sleep, overindulgence in alcohol have been held to be contributing factors. Athletes find that standing under a hot shower too fre-

quently may cause baldness. Heredity, too, has been thought to play a part. Baldness, according to another observation, occurs in persons whose skull bones have calcified to such an extent that the small foramina through which the blood vessels pass are closed or narrowed. (Foramina are perforations

through a bony structure or membrane.) This pinching off of the blood vessels impairs the circulation of the scalp. The suggestion is made by the scientist who advanced this hypothesis that possibly the encouragement of adults in increasing their calcium intake (e.g., in the form of fluid

If you don't receive treatment, you
This advertisement on to a friend.

"I'VE GROWN HAIR"

says **CARL BRANDENFELS**,
The Famous "HAIR FARMER" of St. Helens, Oregon
discoverer of this sensational new SCALP and HAIR TREATMENT

Here's positive proof
Based on sworn statements by these people
who are **ACTUALLY GROWING HAIR!**

"NEW HAIR IN 6 WEEKS"



BEFORE



AFTER

Howard Jones, Butcher
"...after six weeks' treatment I have new hair all over the bald area... now thick and over an inch long."

BEFORE
From a snapshot of Carl Brandenfels showing how he looked October 8, 1945

AFTER
CARL BRANDENFELS as he looks today, since using his own treatment.

NOW AVAILABLE FOR USE BY MEN AND WOMEN!

You've read about it in newspapers, heard about it on the air, newsreels have been made. Now authentic users flood mails with testimonials praising in glowing terms the "HAIR FARMER'S" sensational treatment. Many acclaim the BRANDENFELS' SCALP and HAIR TREATMENT "a miracle of modern science!", "one of the world's great discoveries!". Others declare: "It exceeded my wildest hopes." You, too, may be one of the countless thousands to rejoice in new hair growth, new scalp and hair health!

These statements are typical of scores CARL BRANDENFELS has received from Enthusiastic Users...

REV. L. C. ELLIOTT (Age 50) - Pastor of St. Helens, Oregon. "I have been bald for years... I have now grown hair all over my head... I am now a 'hair farmer' myself." - St. Helens, Ore.

MEL FRED GOSSEL - "I have been bald for years... I have now grown hair all over my head... I am now a 'hair farmer' myself." - St. Helens, Ore.

WILLIAM TADAMIC - "I have been bald for years... I have now grown hair all over my head... I am now a 'hair farmer' myself." - St. Helens, Ore.

SUN JOSEPH C. NADMAN (Age 45) - "I have been bald for years... I have now grown hair all over my head... I am now a 'hair farmer' myself." - St. Helens, Ore.

SEND FOR GENEROUS 5-WEEK TREATMENT...

Many men and women who have faithfully followed this method report these astonishing results—excessive falling hair has stopped; frizziness from dandruff, scalp and hair conditions have been greatly improved; hair made more lustrous and manageable. And a large number report GROWING NEW HAIR! The two new formula liquid treatments are easy to apply, the simple directions easy to follow in the privacy of your own home. Your appearance is actually improved while using. TREATMENTS ARE INEXPENSIVE. A sufficient quantity is provided for over 50 applications at an average cost of only 5¢ each.

ACT NOW! At the first signs of receding hair, order BRANDENFELS' SCALP and HAIR TREATMENT, for in many cases early use has SAVED HAIR!

CLIP OUT AND MAIL TODAY!

CARL BRANDENFELS, "The Hair Farmer"
St. Helens, Oregon

Order by Phone and Mail—No Agent Needed—Brandenfels' 5 WEEKS SCALP and HAIR TREATMENT with directions for use is 50¢ per bottle.

Check ☐ 5 bottles \$25 plus 20¢ freight (10¢ refund) \$24.80

CCB ☐ I agree to pay payment \$24.80 plus freight charges.

NAME _____
ADDRESS _____
CITY _____ STATE _____

Terms: 20% CASH
Cash order will be shipped immediately, enclosed C.C.B. check will be filed as receipt in the treatment package.

Visit CARL BRANDENFELS on your trip to the beautiful scenic PACIFIC NORTHWEST!



Visit the enterprising company of St. Helens, Oregon, home of the "HAIR FARMER".

See living proof of the success of his Revolutionary Discovery—talk with people in all walks of life, who actually have grown hair.

I do not guarantee that use of my treatment will cause hair to grow. There are too many variable factors, including health, and age, to make a guarantee possible. I can assure you, however, that many people have reported growth of new hair following the use of my treatment. My treatment was designed to improve the condition of the hair and scalp. The many testimonials that I have on file indicate that it has been successful in this respect. Many users have reported beneficial results from the continued use of my product.

Advertisement—Not a Salesman

milk) may contribute to this scalp calcification process. According to still another researcher, baldness in men is due to overstimulation of male hormone secretions.

If the theories as to the cause of baldness or falling hair seem numerous, the proposed remedies are legion, too. Mechanical therapy is offered to stimulate the circulation of the blood in the scalp; this is advocated in the form of various types of vibrators. The costly administration of certain hormone extracts by injection has taken large sums from hopeful patients. The amount of money spent on combinations of drugs in liquid or salve form down through the centuries cannot even be estimated. As to the efficacy of such products, one has only to look about him in a mixed gathering to discover that if any certain remedy has been found that will grow hair on a bald pate, many have not been informed of the glad tidings.

One of the latest "sensational" discoveries, heralding its availability at \$18 (including tax) for the 16-oz. bottle, for men with a vanishing hairline is *Brandenfels' 5 Weeks Scalp and Hair Treatment*. An advertisement for this product sets forth with customary enthusiasm sworn statements of satisfied users and reports: "Many acclaim the *Brandenfels' Scalp and Hair Treatment* 'a miracle of modern science!', 'one of the world's great discoveries!'. Others declare: 'It exceeded my wildest hopes.' You, too, may be one of the countless numbers to rejoice . . ." etc.

Such impressive claims in full page newspaper and magazine advertisements apparently enabled Mr. Brandenfels to reap a considerable harvest of or-

ders, for one of the Oregon newspapers reported that the St. Helens post office where the packages of the two-bottle treatment were mailed would probably become a first-class post office when mail receipts were tallied at the first of the year.

The belief in the magical power of some new product of commonplace or well-known ingredients to work miracles is apparently still high, in spite of the wide diffusion of education in modern times. Expert chemical analysis of the Brandenfels' products indicated that one bottle consisted essentially of water with about one-half of one percent sulfanilamide. Indeed, the fact that the preparation contained sulfanilamide in aqueous solution was declared on the label, in conformance with requirements of the Food, Drug, and Cosmetic Act. The contents of the second bottle, characterized as similar to the usual hair oil or brilliantine, was found on analysis to be a pearly-white emulsion of which the essential ingredients were stearic acid (a white fatty compound present in many fats) and lanolin with a small amount of gum arabic.

Before expending the not inconsiderable sum of \$18, the prospective purchaser who has learned from previous sad experience with other hair "restorers" that there is a wide gap between promises and performance will naturally ask whether applications of these preparations will be likely to restore his vanishing locks to their former state of sufficiency. The simplest and most direct answer is that received by Consumers' Research from the Bureau of Investigation of the American Medical Association that there is no evidence that

sulfanilamide will have any effect as a hair grower.

Sulfa drugs, which are a comparatively new development in the field of medicine, are quite effective in combating some bacteria. Because of their toxic effects on certain individuals, however, they should never be used except on the advice and under the supervision of a physician. One danger in self-administration of sulfa drugs is that the person taking them may develop a sensitivity and be subject to severe allergic reaction. There have been many deaths due to the administration of sulfa drugs.

It is obvious that in addition to the fact that there has been no evidence of a scientific nature that sulfa drugs are a specific for falling hair, there may be some danger involved in the routine or casual use of a hair preparation containing sulfanilamide. As a matter of fact, the label of *Brandenfels' Scalp and Hair Treatment* carries a warning required by the Food and Drug Administration as follows:

CAUTION should be observed in applying this formula to persons who have exhibited a sensitivity to sulfanilamide. Should undesirable reactions occur, discontinue use immediately. Do not use on infants and small children except on advice of physician.

Those who asked the question whether or not Mr. Brandenfels' product will surely revive their vanishing hair could also have found the answer by a careful reading of one of his circular letters in which he frankly stated:

I do not guarantee that use of my treatment will cause hair to grow. There are too many variable factors, including health, age, cause and use in such a process to make a guarantee possible.

You see, if you receive the

impression after reading some of the full page advertisements of *Brandenfels' 5 Weeks Scalp and Hair Treatment* that here was a sure cure, it was you who were wrong, not the advertiser. Don't think for a moment that Mr. Brandenfels was trying to

make any such claim, for that would be sure to get him in trouble with the Federal Trade Commission and quite likely with the Food and Drug Administration as well. You pay your money and take your chance. If you aren't success-

ful in improving the condition or abundance of your tresses, remember Texas Guinan had a phrase for it—but don't blame Mr. Brandenfels. He seems to be a pretty smart advertiser, considering the difficulties of his problem.

Selection and Care of Rugs and Carpets—II

Types of Construction

While at one time the type of construction or method of weaving the pile into the backing, stood for a fairly definite grade of rug, this is no longer true. For example, the name Wilton once stood for durability and high quality. This same weave is now used in making rugs of various grades to sell at various prices. The practice is also followed in the manufacture of the other weaves such as Velvet and Axminster. Low-, medium-, and high-priced rugs are made in practically every known weave. Broadloom, a term which might be misconstrued to represent some standard as to quality, has no such significance. It merely means that the rug has been woven on a wide loom to give a seamless strip of the desired breadth such as 18 feet. Any quality of rug or carpet can be woven on a broad loom.

A brief discussion of the various weaves should provide useful information as to what can be expected in the available types.

Wilton is a cut-pile fabric in which a maximum of six colors may appear, each color being woven in on a Jacquard

loom with a different yarn. When one color is on the surface, all other colored yarns are carried below the surface where they don't show. This process makes a heavy rug because of the increase in the back thickness. The buried fibers do not necessarily increase the wear life of the rug, but they do provide a more luxurious, heavier floor covering. In other words, the buried pile fibers necessarily add to the cost but constitute a rather expensive method for increasing the thickness of the rug. Wilton is made in both woolen and worsted pile fibers. The woolen pile gives a thick plush finish; the worsted, tightly twisted, is more brittle and is made with a shorter pile. Worsted Wilton is considered the best wearing carpet made.

Velvet, also a cut-pile, is less expensive and more economical than Wilton because all of the pile yarn is on the surface with only the minimum possible amount held in the backing. Inexpensive filling yarns give thickness to the rug. The better grades are very durable. Most of the solid-color carpets are of this construction. The weft threads are usually of jute

and are fairly heavily sized with a special type of glue to give the carpet increased strength and stiffness. The best quality of velvet rugs has a pile $\frac{1}{3}$ to $\frac{1}{2}$ inch long. Medium grades have a shorter pile. The lowest priced Velvets are characterized by a short pile and a very stiff backing.

Tapestry rugs are made by the same weaving method as Velvet but have uncut instead of cut-pile. With Velvet rugs the pile is woven over special wires having a knife-edge at the end. When the weaving is finished the wires are withdrawn and the knife-edge at the end cuts the loops. In Tapestry rugs, the wires are round and have no knife-edges at the ends, so that when they are withdrawn the pile remains in the form of loops. The cut-pile or Velvet gives a softer tread, but is also likely to show a "shadow" effect, particularly in plain colors. With tapestry, a longer pile is required to approach the soft tread of velvet; the uncut pile overcomes the shadow effect. In spite of these disadvantages and the greater durability of the Tapestry rugs, the Velvets are considerably more popular, no doubt because of

their more luxurious appearance and feel.

Axminster, like Wilton and Velvet, is a cut-pile. A good grade of Axminster is usually intermediate in price between a comparable grade of the other two types. As with Velvet, most of the pile is in the surface of the rug, although the method of weaving is somewhat more complicated than with Velvet. Any number of colors may be used. The pile fibers are attached to heavy, rather stiff jute used as weft or crosswise fibers. The warp or lengthwise fibers are of flexible cotton, so that the rug can be rolled lengthwise but not crosswise, a characteristic which marks Axminsters.

A good grade of these rugs, judged largely by length and density of the pile, is serviceable, has a good appearance, and is moderate in price as compared with Wilton. Axminster is the most popular weave made and constitutes about 40 percent of all the carpet yardage manufactured in this country. Plain wool rather than worsted fibers are used in the pile, which is ordinarily longer than in Velvet rugs. In the poorer grades of Axminsters the jute fibers stand out in ridges on the back and make the rug very stiff; the better grades are somewhat more pliable.

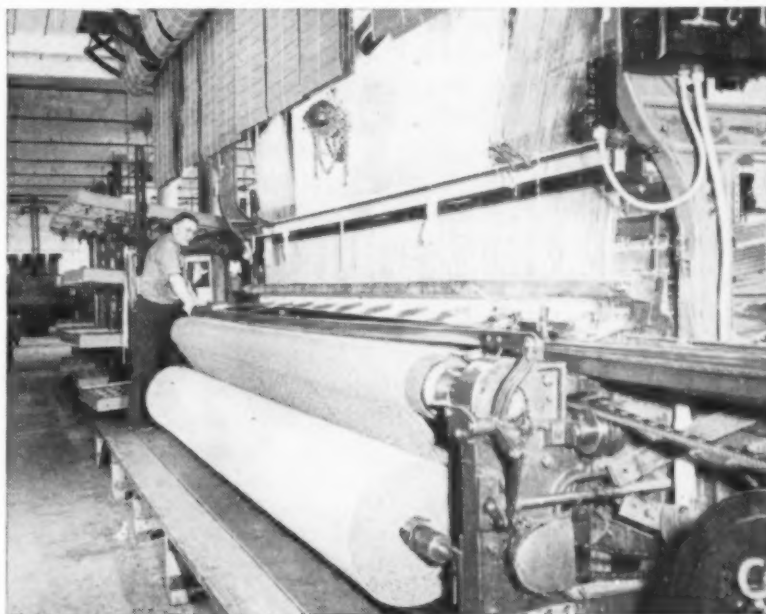
Chenille rugs and carpets represent the most expensive type of cut-pile construction produced. They are woven in two operations. The pile is woven first into long strands, which in turn have to be woven into the backing. The weft yarn of the backing is often a coarse wool, or it may be of camel and cattle hair. A very thick rich carpeting results. Because of the high cost only a

relatively small quantity is made, in plain color, except on special order. Because such carpeting can be made in any desired shape, and because of its richness and durability, it has been used in the foyers of several large moving picture theaters.

Sheen-Type rugs, woven by the Wilton or Axminster technique, are intended to copy the appearance and designs of hand-made Orientals. They are often

tic Sheen-Type rugs, is to give the rug a chemical wash. This need not necessarily reduce the durability, but it will if overdone. Most modern hand-woven Orientals are given a chemical treatment.

Patent-Back carpets represent a rather new development in carpet manufacture as a result of laboratory research. These may be made by different weaving methods and then given an extra backing in which



A Broad Jacquard Wilton Loom

Here a textured carpet, 12 feet in width, is being woven. The roll may be as long as 32 yards.

termed American Orientals or Domestic Orientals. The backing is of soft cotton, the pile yarns of either plain wool or worsted. Since no sizing is used, these rugs approach the pliability of genuine Orientals. In old Orientals, a high luster was obtained by the fact that the pile tufts were made to lie obliquely toward one corner of the rug, or lengthwise of the rug; the sides of the pile fibers reflect light to a much greater extent than the cross sections of the ends. Another method of producing sheen and the one commonly employed in domes-

the underside of the carpet is coated with a special plastic or lacquer. Another procedure is to embed the pile tufts in a solution of rubber cement and vulcanize them to a fabric back. In either case the result produces a carpet which can be cut to fit around fireplaces and other odd-shaped protuberances from the wall, without requiring binding, serging the edges, or turning under. In other words the carpet material can be cut freely in any direction and will not ravel.

It is very easy to repair worn spots in such carpets, since a

portion can be cut out and a new piece inserted. The edges of the cut part are joined by means of special tape and cementing material. The seams do not show; the joining process is much stronger than stitching; and the patched rug lies perfectly flat on the floor. These new carpetings are sold in plain colors and in several stock designs. Several grades are available, comparable in price to that of the standard weaves of similar grade.

Texture floor covering represents another fairly recent development in rug and carpet manufacture. The woolen yarns to be used are given several more twists to the inch than in the usual spinning operation. The three-ply strands for the pile fibers are also given extra twists and then are treated to retain this condition throughout the life of the rug. The weaving may be done on any one of the standard looms, but varied effects are introduced by mixing different weights of yarns, sometimes mixing different colors in the same strand, and by using both cut and uncut pile.

This textured treatment is to overcome the tendency to shading, marking by footprints, etc., which is often observed in plain-color carpeting made by standard methods. Self-color patterns are produced, as well as embossed effects. The tightly twisted, heavy wool used in the rug gives it excellent wearing qualities. The extra processing of the wool involves a somewhat higher cost of production than in a plain comparable weave.

Care of Rugs and Carpets

The life of a carpet or rug can be increased greatly—according to the National Bur-

eau of Standards, by 75 to 140 percent—by use of a pad or lining under the rug. Pads made of jute and cotton are likely to mat down in time, while sponge rubber retains its resiliency longer. The pad should be about an inch shorter than the rug on each side, so that the edge of the latter laps over smoothly. Besides making a thicker floor covering, such a pad takes some of the wear and also prevents the rug from slipping. The total thickness should not be so great that doors will not clear when they are opened and closed. Scraping the upper surface of the rug with the door would be highly detrimental.

Pile rugs should not be swept with a broom, for the dirt is more likely to be packed into the rug than to be removed by this procedure. A carpet sweeper may be used daily but it only takes up dirt and lint on the surface. A vacuum cleaning is needed at least once a week to remove embedded dirt. Soil, particularly if gritty, is one of the causes of wear and severe damage. New rugs lose lint, soft ends which drop down between the tufts during the shearing process and become embedded there. This fluffing may go on for weeks or even months, but is no cause for alarm, since the rug itself is not losing any of its structural material.

Small rugs should not be shaken since this treatment may be severe enough to break the backing threads. When rugs acquire a surface grime not removed by the vacuum cleaner, they should be sent to a commercial cleaner for shampooing or dry cleaning. Shampooing a large rug in the home is not successful, since no effective

means of rinsing and drying is available. The home soap and water treatment is particularly bad since it is almost impossible to remove the soap residue, which leaves a sticky film on the fibers. This causes the rug to become soiled more readily so that the final result is worse than no cleaning at all. Ammonia and water should never be used, since ammonia is alkaline and may be injurious to the color. Commercial cleaning is usually necessary no oftener than once a year or every two years, depending on the amount of use a rug gets.

Texture rugs are preferably dry-cleaned so that the twist of the fibers will not be removed. Some are guaranteed to be permanently finished, even after washing. This point should be determined at the time the rug is bought.

A precaution for prolonging the life of a rug is to change its position from time to time, so that if one end gets a great deal of wear, the rug can be reversed end to end to distribute or change the area of wear.

If the ends of a rug tend to curl up, place a damp cloth over the end and steam with a hot iron, first on one side then on the other. Anything spilled on the rug should be cleaned off immediately. Solids can be scraped up with a spoon or dull knife; some spots can be sponged lightly with plain water, others with a solvent for removing grease, such as carbon tetrachloride. (Caution: avoid breathing vapors, so far as possible, or do the work out of doors.) If the pile has been wet for any reason it should be brushed gently in the general direction in which the pile lies. Moist spots should be dried thoroughly by propping the rug up from the floor until dry.

Automobile Tires

IN a recent article in the New York Times, based on information presumably supplied by tire manufacturers and not checked by the Times, it was stated that "the life of the average tire now is close to 50,000 miles," and an advertisement of one of the leading tire manufacturers quoted a testimonial from one of their customers to the effect that the tires on his present car had gone over 32,000 trouble-free miles and were still good for many more miles of hard driving. An investigation by CR reveals that the average life based on all sizes of passenger car tires is probably about half of the figure the Times gave publicity to, or about 25,000 miles, with 50,000 miles representing perhaps about the extreme limit of mileage that can be expected from the best tires when the user drives carefully, and has good luck, besides. There will, of course, be some individual and exceptional cases where even 50,000 miles will be exceeded before tires need to be re-capped or discarded, but such cases will surely be the exception rather than anything corresponding to a national average. Many post-war tires should give mileages equal to pre-war tires in so far as the life of the tread is concerned. However, due to the lesser flexibility of synthetic rubber, internal friction of present tires is higher than for tires made entirely of crude rubber. This internal friction increases the rolling resistance, which, in turn, increases the gasoline consumption, and appears finally in the form of heat which increases the temperature of the

tire, and so reduces its resistance to internal wearing out. The real problem today is to obtain sufficient carcass life to prevent such failures as tread separation, fabric cracking, splitting, etc.

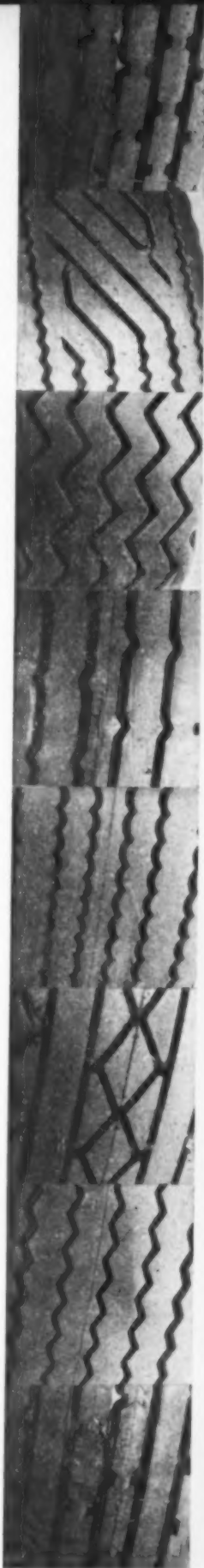
The tire makers apparently believe their tires are now good enough to adjust on a somewhat more liberal policy than pre-war tires, for they have increased the adjustment period from 18,000 to 20,000 miles (this figure may give an idea of what tire manufacturers really think the normal life of one of their tires should be).

Federal restrictions on the use of natural rubber now require that all automobile tires be made at least in part of synthetic rubber. 6.00 x 16 and smaller tires may contain not more than 23% crude rubber. Eight 4-ply, 6.00 x 16 tires of the so-called "first line" grade were selected for test.

Each tire was weighed, inspected, and then carefully dissected. The parts were examined for quality of workmanship, materials, and design. Resistance of the tread to abrasion (a measure of the wear-resisting qualities of the tire in use) was determined on an abrasion-testing machine. Breaking strength, and stress-strain data obtained by means of a tensile-strength machine, and hardness, together with tread dimensions, gave added points with which to judge the quality of the tread and its probable life in use (on a relative basis).

The forces to separate the plies or layers were also measured; four such adhesion measurements were made, i.e., between sidewall and carcass,

cushion and carcass, second and third plies and outer breakers and tread. The number of cords per inch, their make-up, breaking strength, and position in the carcass were determined, as were the tread count, width, thickness, and weight of the flippers and chafers. Several other determinations, all important in judging the strength and durability of tires, were made. In rating each tire, greatest weight (50%) was given to the tread qualities, with the qualities of



The tires are, top to bottom: U. S. Royal De Luxe, General Silent Grip, All State, Lee Regular De Luxe, Goodyear Silvertown, Goodyear De Luxe All Weather, Firestone De Luxe Champion, Riverside.

the carcass receiving the next greatest weight (40%). (The carcass, i.e., fabric and rubber parts, exclusive of the tread rubber, is chiefly responsible for the safety of the tire.)

Adhesions of sidewall to carcass, of cushion to carcass, of second ply to third ply, and particularly of outer breaker to tread, were on the average lower for 1947 tires, although individual tires were exceptions. Tensile strengths of the rubber compounds used in the treads of the 1947 tires are much lower than in the tires reported in 1941. The cushions and tie-gums of the tires tested previously were usually of distinctively colored compounds, while only the *Lee* tire of this group had a separate color for cushion and tie-gum. A particularly notable difference is the fact that cross sections of each of four of the 1947 tires (*Firestone*, *Goodrich*, *Riverside*, and *U. S. Royal*) showed a line of fusion just beneath the bottom of non-skid grooves, indicating that a different rubber was used as a base for the tread; abrasion tests showed that the abrasion resistance of this rubber was less than that of the tread rubber.

It should be pointed out that variations in tire manufactur-

ing may easily produce a lot or a run, of perhaps several hundred tires, of a quality which varies widely from the general average of production, usually in the sense of being considerably below normal or average quality. It is therefore possible that consumers may purchase particular tires with characteristics which give performance considerably below that of the samples reported for the particular brand, but we believe that the following ratings are a reliable guide in the great majority of cases to passenger car tires of the brands of tires tested, as made at the time these tires were purchased. Tires are listed in order of estimated relative average merit; prices include tax. Ratings are cr47.

A. Recommended

Lee Regular DeLuxe (Lee Tire & Rubber Co., Conshohocken, Pa.) \$15.56. Above average in tread wear resistance, and best carcass of any tire tested. Highest total "rating points." 2

Firestone DeLuxe Champion (The Firestone Tire & Rubber Co., Akron, Ohio) \$16.41. Ranked first in tread wear resistance, and second in total "points," but quality of carcass was below average. 2

General Silent Grip (General Tire & Rubber Co., Akron, Ohio) \$16.70. Above average in tread wear resistance; about average in quality of

carcass. Somewhat higher in price than the *Lee* and *Firestone* tires, but not correspondingly better in quality. 2

All State (Sears-Roebuck's Cat. No. 95-06500) \$12.95, plus freight. Ranked second in tread wear resistance, but carcass below average. 1

Goodyear DeLuxe All Weather (Goodyear Tire & Rubber Co., Akron, Ohio) \$16.41. Carcass above average, but poor tread wear resistance made this a borderline tire, barely, in CR's judgment, warranting an A rating. 2

B. Intermediate

U.S. Royal De Luxe (U.S. Rubber Products, Inc., New York City) \$16.41. Below average in tread wear resistance; about average in carcass. On the average, quality considered only slightly above that of *Riverside* tire. 2

Riverside (Montgomery Ward's Cat. No. 64-1413 M) \$12.95, plus freight. Below average in tread wear resistance; about average in quality of carcass. Despite some differences in construction, this tire and the *U. S. Royal* were judged to be essentially the same. 1

C. Not Recommended

Goodrich Silvertown (B. F. Goodrich Co., Akron, Ohio) \$16.11. Bead and breaker construction satisfactory, and carcass only slightly below average, but wear resistance of tread was exceptionally poor. (Abrasion resistance was checked several times and found to accord closely with the pre-war *C-Not-Recommended Ameripol* reported in the June 1941 Bulletin.) Rubber was considerably "softer" than that of the tires of other brands tested. 2

Off the Editor's Chest

[Continued from page 2]

contempt for America is one of the ... prejudices in which all nations of Europe seem to concur." But whether they enjoyed their travels or not, nearly all were impressed with the abundance of food, particularly meat, that those who lived in the New World enjoyed, and the number of mechanical contrivances that even then were available. As

Charles Joseph Latrobe, who made his visit in 1832-1833, put it:

... whether it is in the fine arts that America is to distinguish herself or not, there can be no doubt that in the mechanic arts she will attain great excellence. Of that, everything gives promise, and the very circumstances that would seem to be against her in her cultivation of the former, are highly conducive to her advance and perfection in the latter. ... The steam-vessel contains abundant proof of this mechanical talent in every part of its detail. From the bridges, water

works, railroads, docks, and public works of every description, down to the countless number of aids to human comfort to the very mouse trap, you detect the prevalence of this same busy ingenuity and talent. And there is no reason to believe it will not grow with the growth of the country.

This prophecy that the mechanical ingenuity of the United States would result in increasingly fruitful results throughout the years has proved to be an understatement, indeed, as people

throughout the world who came into contact with the marvels of American road-building machinery, radio and communications equipment and motor cars, during World War II can testify.

On the home front, the effectiveness of a variety of consumers' goods as the needed incentive to set the world on an even keel after the enormous wastes and destruction of war is slowly manifesting itself as an unmistakable force to be reckoned with. In present-day England, for example, one of the Labor Government's managers of a coal mine frankly admitted that one of the chief causes for the high rate of absenteeism that results in

a shortage of sorely-needed coal was the *lack of things in the shops on which the miners could spend their pay*. He was reported as saying, "You put 2,000 fur coats in the stores here and you sell 'em for 100 quid (\$400) apiece and you bring in some nylon stockings—then the men will work."

The hypercritical visitor from the USSR was probably not permitted by his government to stay in this country long enough to acquire a taste for our way of living or he might have realized that what we hold in esteem is not the automobile, washing machine, or mechanical refrigerator *per se*, but

the ideal of a decent life for all our people, not Packard cars just for the Commissars. We see no reason to apologize for our emphasis on the importance of a car, refrigerator, electric iron, and the washing machine in lightening the burden of the women of this country in their execution of the chores of daily living. Their release from a large portion of the drudgery involved has undoubtedly been an important factor in increasing the efficiency of the family and its living and so giving America the ability to turn out the flow of useful, time-saving products that have made our economic system the envy of the world.

Pre-Emphasis and De-Emphasis in FM Broadcasting and Reception

SOME of the reports on FM or combination AM-FM receivers and tuners which have been published in recent months in CR's BULLETINS have included a graph showing the electrical fidelity (audio response curve) of the FM section. In all cases, this graph was published as actually measured, and showed a falling off of the higher frequencies as produced by the circuit used by the receiver manufacturers. This falling characteristic or "de-emphasis" reflects good receiver design, and is incorporated to compensate for a corresponding *pre-emphasis* over the same frequency range introduced at the broadcasting station (for the purpose of reducing the noise background). The pre-emphasis used at the broadcasting station is shown in Figure 1. The response curves as published for the *Magnavox Regency* (October 1947), the *Browning AM-FM tuner* (October 1947), and *Pilotuner* (November 1947) were shown without indicating that their declining characteristic was intentional, to correct

for the pre-emphasis at the broadcasting station. This point was noted in connection with the *Scott* (p. 9, May 1947), however, in the following terms: "The downward trend of the dotted curve is intentional, to correct for pre-emphasis of highs at the FM transmitter."

An ideal or perfect response

curve for a given receiver will be what mathematicians call a "mirror image" of the pre-emphasis curve shown in Figure 1 so that the combination of the actions at the transmitter and at the receiver would give a straight line along the zero decibels axis instead of a curved falling characteristic.

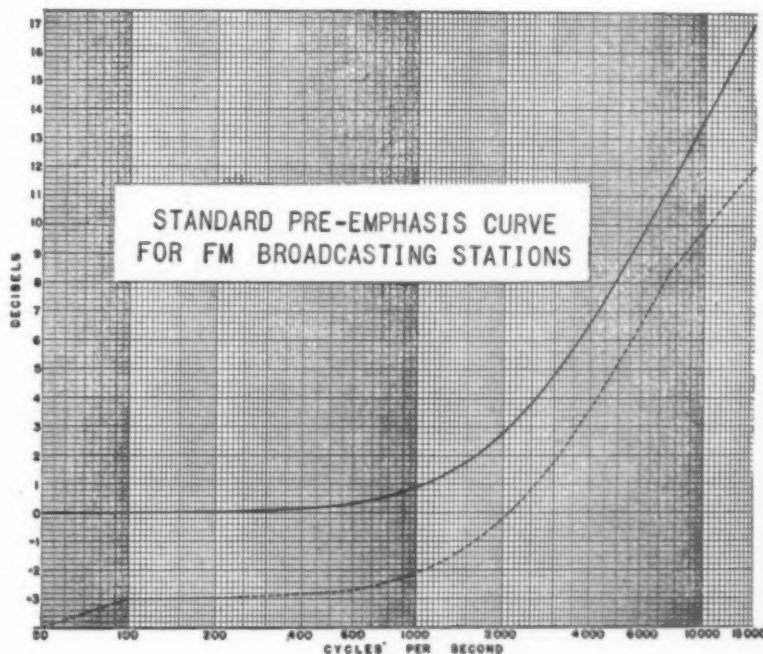


Figure 1

The allowable deviation of frequency response from the standard pre-emphasis curve, given by the solid line, is shown by the dotted line.

Anti-Freeze Solutions

Consumers will do well to Buy with Care

WITH the threatened shortage of the customary and well-established types of anti-freeze, there has been a re-appearance on the market of calcium chloride (brine) and petroleum distillate type anti-freeze products. As many of our subscribers will recall, the brine and petroleum liquids were banned during the war period to protect the users of the nation's automobiles from damage to their cars. The War Production Board subsequently lifted its ban on one petroleum distillate product, *No-Freeze*, but only with the provision that certain requirements be met. Briefly these were: (1) that no "over-the-counter" or mail-order sales were to be permitted; (2) sales had to be accompanied by the necessary service which included a thorough cleaning of the cooling system by approved methods; (3) customers were to be advised of the necessity of removing the product from the cooling system as soon as the need for protection against freezing had passed.

These conditions represented such an obvious disapproval of the type of product involved that it is difficult to understand why government authorities should have conceded the right to sell this type, for an anti-freeze with these disadvantages is not one such as a careful user would care to employ in his car.

Later tests by a state laboratory confirmed CR's earlier comments that *No-Freeze* had a solvent action on the rubber hose of the cooling system, which, of course, would cause

serious difficulties by clogging and perhaps loss of the cooling medium through leaks in the hose, with possibility of serious damage to the engine. (There were other serious disadvantages, but space limitations prevent their mention here.) *No-Freeze* is now being widely advertised nationally in the Saturday Evening Post and other magazines. An inquiry has been received that indicates that another product in this class, *Safas*, is also being marketed. CR recommends against using this or any other petroleum-oil type anti-freeze if it is at all possible to obtain an alcohol anti-freeze (preferably the ethanol or grain alcohol type).

Calcium chloride solutions, whether or not they may claim to contain what are alleged to be inhibitors to prevent corrosion, are even less desirable than the petroleum-oil type, for calcium chloride has highly injurious effects on the metal parts of the engine and cooling system, such as water pump, radiator, aluminum cylinder heads, etc. They can cause partial or complete stoppage of water passages, with resultant overheating. The water pump shaft is rapidly eroded and may leak, causing the corrosive solution to be sprayed over or deposited on parts of the engine, with drastic effects upon the functioning of the ignition system.

According to a report in the press, investigators at The National Bureau of Standards found, after exhaustive tests using actual engines and cooling systems, that calcium chlo-

ride anti-freeze solutions containing inhibitors were more destructive than similar solutions without the inhibitor. (The inhibitors have seemed to concentrate the corrosive action of the salts.) The seriousness of the situation cannot be overestimated when it is realized that in the tests mentioned, a calcium chloride anti-freeze containing an "inhibitor" is said to have eaten a hole through a cylinder wall in three weeks. The press account indicated that these findings were fully supported by all of the large automobile manufacturers and the nationally-known oil companies.

The only thing surprising to CR in this connection is that anybody should have had the hardihood to attempt to resume the marketing of these long-discredited brine solutions and petroleum distillates whose unsatisfactory, and in some cases seriously harmful, qualities have been known for many years.

Quite frequently calcium chloride solutions have been so labeled as to give the impression that they are composed of glycol derivatives.

If there is any doubt about the type of anti-freeze being offered, *its character should be determined before it is placed in the cooling system.* This can be done with little difficulty. If a half spoonful or so evaporated over heat in a small tin or lid leaves a white, gray-white, or dirty-brown crystalline deposit, it is pretty safe to assume that the liquid is a calcium chloride brine.

Weight is also a good indication of the type of material. Calcium chloride solutions weigh $10\frac{1}{2}$ to $11\frac{1}{2}$ lb. net per gallon compared to $9\frac{1}{2}$ to 10 lb. for ethylene glycol; 7 to $7\frac{1}{2}$

lb. for denatured alcohol; and $6\frac{1}{4}$ to 7 lb. for petroleum distillate (similar to kerosene oil); the last-named do not mix with water and are usually undiluted. Use only grain alcohol (ethanol),

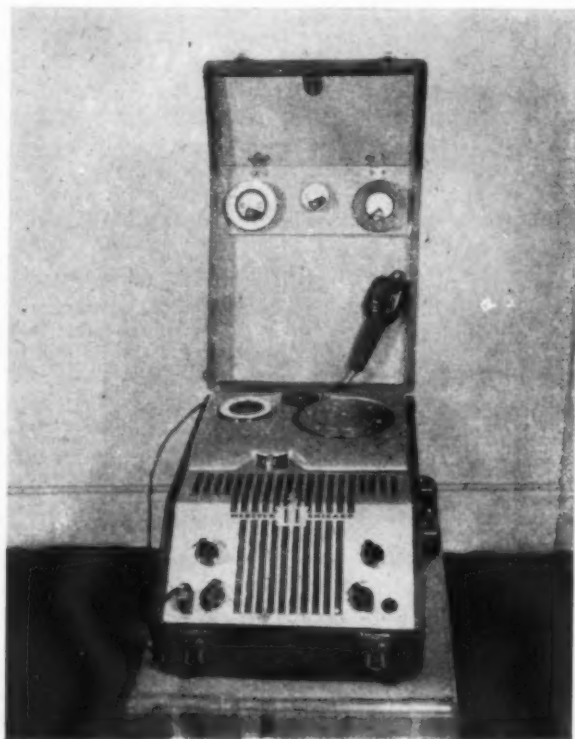
isopropyl alcohol, wood alcohol (methanol), or ethylene glycol type anti-freeze solutions. Wood alcohol is satisfactory, but is believed to be the least desirable of the alcohols.

Wire Recorders

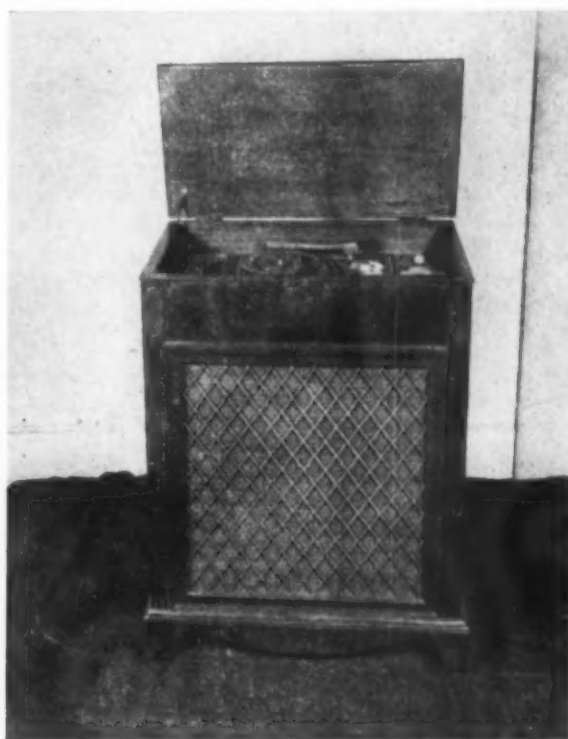
DURING the late war the 50-year-old idea of recording sound magnetically on steel wire was resurrected and developed sufficiently to give it practical value. Publicity which was released on this development encouraged many persons to expect that magnetic wire recorders, which would shortly be made available to consumers, would provide quality of reproduction comparable or even superior to that obtainable from high-grade phonograph reproducers using the familiar shellac composition disks. The future owner was led to believe that a good re-

corder would be able to record for permanent or temporary use with excellent fidelity and a minimum of background noise any radio programs he enjoyed, music from a borrowed phonograph record played on his own phonograph, music from an amateur orchestra, singing or talking by members of his family and friends, and the like. Recordings made directly "off the air" or from high-fidelity phonograph records of high-grade music equivalent to those available on high-quality phonograph disks, but not subject to needle wear as are disks, also appeared to be a possibility.

Some wire recorders are now on the market, but the quality of reproduction from those so far tested will be disappointing to any consumer who has not learned to discount the rosy predictions which were made regarding many post-war boons that were to be made available for consumers. There is reason to believe that the mediocre to poor quality of reproduction available from today's run-of-factory wire recorders is to a great extent to be blamed upon the inadequacies of the amplifiers and loud-speakers provided with these units, rather than upon any inherent limita-



Webster-Chicago Wire Recorder, Model 80-1



Silvertone Wire Recorder Radio-Phonograph, Model 7102

tion of the principle of magnetic recording. The consumer who wishes to obtain the most satisfactory results will have a better chance of success if he purchases only the recording equipment, and uses it in connection with a high-fidelity amplifier and loud-speaker, either in an existing radio set or phonograph, or one purchased for the specific purpose.

Recording upon wire from radio programs or from phonograph records should be made by suitable *electrical* interconnection of the wire recorder with the radio set or phonograph, for recording by use of a microphone to pick up the sound from the radio or phonograph loud-speaker introduces additional major elements of distortion in that both loud-speaker and microphone generate distortion components. In addition, there will be adverse effects from acoustical deficiencies of the room in which the recording is being made.

Some difficulty was found in CR's tests, and some has been reported by salespersons who have been demonstrating wire recorders, in obtaining complete erasure of a recording from a wire, particularly if the recording was made at a high volume level. Any incompletely erased recording appears as a disagreeable background noise when the wire is used for a subsequent recording. It would appear that this difficulty is not an inescapable one, and that it could be avoided by an improved design of the magnetic circuit used for erasing, or by use of a wire of improved magnetic characteristics, or perhaps by a combination of both. Other difficulties encountered in operating wire recorders in-

clude breaking, tangling, and kinking of the wire, which is only a few thousandths of an inch in diameter. Presumably these difficulties can be mitigated or removed by extremely careful handling of the wire, but the consumer must not assume that troubles with wire cannot be extremely annoying and expensive.

Because of hysteresis in the steel of which a wire is made, a recording made on a wire which originally was demagnetized completely would result in variation of the volume of reproduced sound which would not be proportionate to the variation in volume as recorded. To obviate that difficulty, enough sound "bias" (at supersonic frequencies) is recorded on the wire immediately after erasure of a preceding recording to bring the level of magnetism to a point at which recording of more sound will be reproduced with accurate variation in volume.

B. Intermediate

Silvertone Wire Recorder Combination, Model 7102 (Sears, Roebuck & Co.) \$199.50; extra wire for 60 minutes of playing time, \$4.95 per spool. This is a combination radio set, phonograph, and wire recorder. The radio set is an ac-dc superheterodyne using 6 tubes, including 2 rectifiers. One additional tube is required as a microphone amplifier, and another as a supersonic oscillator for the wire recorder. An *Astatic L 71 A* cartridge is used in the phonograph pickup. A hand-held microphone is provided. Approximate response range from antenna to speaker voice coil was 35-4000 cycles. Approximate range of radio and playback sections (electrical) was 80 to 3600 cycles (not enough for high-fidelity recording and reproduction, and indicating the loss in range due to use of the wire recorder section). (Audio amplifier alone, 37-7800, considered very good.) Power output at 400 cycles with 10% distortion was 1.4

watts (insufficient for good reproduction); maximum power output was 2.4 watts with 50% (extremely high) distortion. On listening tests, the bass in the radio section was somewhat overemphasized (which some listeners may find unpleasing), and bass rattles were noted in phonograph reproduction at high volume. Over-all performance as a radio set or phonograph was typical of that afforded by a low-grade console model. Reproduction in listening tests of the wire recorder was inferior to that of the radio section of the equipment. Voice reproduction was satisfactory because only a narrow response range is required for fairly good reproduction of voice, but reproduction of music was marred by a wavering or "wow," and by a high level of hum. There was no trace of this "wow" and the hum level was much lower in another unit of this type which was subsequently examined. This indicates that the unit tested may have been defective in this respect. Maximum power for 5% distortion at 1000 cycles was 0.7 watt. Below about 500 cycles, distortion increased progressively to a value of over 20%. A good feature is an automatic shut-off which stops the motor at the end of each take-up or rewind run. No difficulty was encountered during the test in erasing recordings completely. Considerable difficulty was encountered in breaking and tangling of the wire. The wire can be tied in a square knot and returned to service, but that is a matter of some difficulty. Quality of workmanship was good on the mechanical unit of the recorder, average on the electronic part. High shock hazard.

Webster-Chicago, Model 80-1 (Webster-Chicago Co., Chicago) Unit complete with amplifier, loud-speaker, and microphone, \$149.50 (wire recorder only, obtainable at \$52.92). Spool of wire for 15 minutes of operation, \$2.40; for 30 minutes, \$3.60; for 60 minutes, \$6.45. Control box and recording level indicator, *Model 83*, \$29.95. The model tested was the complete portable unit, including the wire recorder, a rectifier tube, a 3-tube amplifier—one tube of which acts also as the supersonic oscillator—a 5-inch electrodynamic loud-speaker, and a *Turner*, Model 20, crystal-type hand-held microphone. Provision is made for recording an external electric

signal of approximately 1 volt; provision for use of external loud-speaker, or for use of external amplifier and external loud-speaker. Frequency response from external electric input to voice coil of loud-speaker was approximately 90 to 5200 cycles; from external input to connection for external amplifier, 60 to 5700 cycles. With 1 volt input, maximum audio output was about 2 watts at 1000 cycles (not sufficient); distortion

above 200 cycles was estimated at less than 10%, but increased progressively below 200 cycles to an estimated maximum of 20%. There was high hum level which was objectionable in playing back music. Erasing efficiency poor; material recorded at high level was still audible after several erasures in the test. No musical recordings were made through the external connection provided for this purpose.

Music recorded through the microphone was "tinny," but there was no evidence of "wow." Quality of workmanship and parts, good. Leakage current very low. It is believed that a consumer interested in this type of recorder would find it preferable to purchase the wire recorder part only and use it with an amplifier and loud-speaker combination capable of producing better acoustical quality.

Toilet Seats for Babies

A SMALL toilet seat designed for attachment to the standard size seat is not only a convenience but adds greatly to a child's comfort during the training period and for a year or so beyond. In purchasing, a few general rules are worth keeping in mind:

1. The seat should be substantially constructed of wood or plastic, though plastic will probably feel somewhat colder than wood. Examine the prospective purchase carefully for poor workmanship, especially likely to be found in the less expensive seats.

2. There should be a back rest, as it is often necessary for the child to remain seated for several minutes.

3. A foot rest adds much to the child's comfort. It should be adjustable and sturdily supported.

4. A strap with spring catch to hold the infant on the seat is desirable for the first few months of use, perhaps, but as the child should not be left seated for more than a few minutes and would ordinarily not be left alone, the strap is judged of less importance than some other features.

5. The seat should be provided with clamps for attaching it to the adult seat, and these should be so designed that

the child's seat can be attached with one hand, but could not be dislodged by such activities of the child as leaning far off to one side to play with some alluring object in the bathroom.

6. The clamps should be protected with rubber or other covering to prevent damage to the permanent seat. Though the rubber is apt to age and cut through in a few years, clips with such a covering are to be preferred to those that are not properly covered. The rubber can be covered with tape when it is worn out, but the uncovered metal clips must be taped over immediately.

7. A seat which folds can be transported rather more easily than one which does not, but seats are bulky at best, and as they are usually carried by automobile, this is judged a relatively unimportant feature.

8. If the seat is to be used by a boy baby, it should be equipped with a waterproof "deflector" of some easily cleaned material (not canvas) heavy enough to withstand examination and rough handling by the infant, without damage.

A shopping expedition revealed that only relatively few of the useful toilet seats for babies were for sale. Those found were examined carefully and were rated on the basis of

the above recommendations.

A. Recommended

Child Craft (Hamilton Mfg. Co., Two Rivers, Wis.) \$2.98. Well made natural-finish wood. Was similar in appearance to Montgomery Ward's Cat. No. 66—2460 and had all the same features. **1**

Montgomery Ward's Cat. No. 66—2460. \$2.49, plus postage. Well made, folding, washable-finish wooden seat, available in either white enamel or maple. Had all the desirable features, except deflector, mentioned in the listing of No. 66—2452, but was not as well finished. **1**

Sears-Roebuck's Cat. No. 1—08784. \$2.49, plus postage. Included all satisfactory design features. **1**

Little Toidey (The Toidey Co., Fort Wayne, Ind.) \$4.95 for wooden models; \$6.95 for plastic; plastic deflector, 75c extra. Well made folding seat with rubber-covered clamps and rubber bumpers on bottom. Adequate back rest; foot-rest braces were somewhat light and tended to bend out of shape when used by active child. Equipped with safety strap. **2,3**

Montgomery Ward's Cat. No. 66—2452. \$4.98, plus postage. Well made, white enamel folding seat with rubber-covered clamps. Adequate back rest; adjustable foot rest. Equipped with deflector and safety strap. **2**

Child Craft Plastic (Hamilton Mfg. Co.) \$6.95 with foot rest. Well made and much like *Child Craft* wooden seat, but did not fold. **3**

Sears-Roebuck's Cat. No. 1—08790. \$5.95, plus postage. Well designed plastic seat; similar to the *Child Craft Plastic* seat, but not identical.

Did not fold but had all other desirable features. 3

B. Intermediate

Montgomery Ward's Cat. No. 66-2455. \$2.79, plus postage. Molded wood plastic seat with leg support instead of foot rest. This would be suitable for young children but would soon become uncomfortable. Did not fold and was of bulky design which would be inconvenient to carry even in a car. Other features satisfactory. 1

Sears-Roebuck's Cat. No. 1-08767. \$4.69, plus postage. Wooden. Did not fold. Foot-rest adjustment somewhat awkward. Ornamentation of deflector would distract child's at-

tention from training. Otherwise satisfactory. 2

C. Not Recommended

Montgomery Ward's Cat. No. 66-2450. \$1.89, plus postage. Lacked foot rest (undesirable). 1

Sears-Roebuck's Cat. No. 1-08780. \$1.98, plus postage. Similar to Sears-Roebuck's Cat. No. 1-08784 but without foot rest (undesirable). 1

Sears-Roebuck's Cat. No. 1-08741. \$4.95, plus postage. A plastic seat similar to Cat. No. 1-08790 and to the *Child Craft* Plastic seat, but lacked foot rest (undesirable). 2

Sears-Roebuck's Cat. No. 1-08766. \$3.49, plus postage. Wooden. Had neither arm nor foot rests (undesir-

able). Overornamentation of deflector would distract child's attention from training. 2

Child Craft Plastic (Hamilton Mfg. Co.) \$5.95. Lacked foot rest. 3

* * *

Two unidentified seats found in department stores made of wood, finished by dipping. The paint on both had streaked; neither had foot rests; one had a back rest, which did not fold, the other had none. One was provided with 3 dowel rods for attaching to the normal seat; the other had two bare metal clips at the sides; neither was considered an adequate means of locking to the seat.

Fire Alarm Device

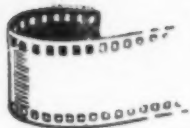
THERE would seem to be no question that much property damage by fire could be prevented or at least minimized if homes were equipped with adequate and foolproof fire alarms. While there have been many devices for this purpose introduced on the market, the majority seem to fall short of their objective. The *Fire Warden*, made by the Premier Appliance Co., Inc., 466 Broome St., New York 13, and selling at \$2.98, while essentially a simple, well-made device, not likely to get out of order, has one very serious defect in that the alarm itself was not sufficiently loud to be heard under various conditions possible in the home, and especially at a time when other distracting or blanketing noises were present. When tested with a loudly played program on the radio, it was found that an alarm located in the basement or attic was not heard by occupants reading or working in some

rooms on the street and second floors of the house. It is questionable whether a heavy sleeper in a bedroom with one or more closed doors between would be wakened by this alarm ringing either in the attic or the cellar.

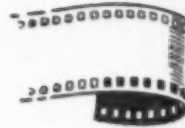
The device consisted of a circular flat can about 4 inches in diameter by 1½ inches thick, weighing about a pound, and containing the alarm mechanism, a resetting device, and about 6 feet of thin ribbon-like strip of corrosion-resisting material which was wound on a drum, the latter being connected through gearing to the alarm. The free end of the strip was equipped with an eyelet and a hook. Two temperature-controlled, fusion-actuated release links were provided, one intended to let go at 117°F to 120°F, and the other at 145°F to 150°F. (Actual temperatures at which the device operated corresponded quite accurately to the maker's temperature rat-

ings.) In actual use, the device is hung close to the ceiling by placing the eyelet at the free end of the strip over a nail or screw; one of the control links (which are shaped like the figure 8) is placed over the hook and the other end of the link is fastened to the alarm by a pin that is provided.

When the temperature reaches the fusing point of the link, part of the link melts; when this occurs, the device as a whole descends gradually by its own weight, and the strip, already referred to, unwinds from its drum. The weight of the alarm device supplies the energy to drive the alarm gearing. The ringing of the alarm continues for a period of about 85 seconds, unless the device has reached the floor or some obstacle before that time has elapsed. If the device has not been damaged by the fire which presumably set it off, it can be reset and used again by installing a new fusible link.



Ratings of Motion Pictures



THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, *Charm*, *Chicago Daily Tribune*, *The Christian Century*, *Cue*, *Daily News* (N.Y.), *The Exhibitor*, *Harrison's Reports*, *Motion Picture Herald*, *National Legion of Decency List*, *Newsweek*, *New York Herald Tribune*, *New York Times*, *Parents' Magazine*, *Release of the D.A.R.*, *Preview Committee*, *Successful Farming*, *Time*, *Variety* (weekly), and *Unbiased Opinions of Current Motion Pictures* which includes reviews by the General Federation of Women's Clubs, the American Legion Auxiliary, National Film Music Council, and others.

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure	hist—founded on historical incident
biog—biography	mel—melodrama
c—in color (Technicolor, Cinecolor, Trucolor, Magnacolor, or Vitacolor)	mus—musical
car—cartoon	mys—mystery
com—comedy	nov—dramatization of a novel
cri—crime and capture of criminals	rom—romance
doc—documentary	soc—social-problem drama
dr—drama	trav—travelogue
fan—fantasy	war—dealing with the lives of people in wartime
	wes—western

A	B	C		
—	3	9	Adventure Island	adv-c A
—	3	2	Adventures of Don Coyote	mus-wes-c AYC
—	3	2	Along the Oregon Trail	mus-wes-c AYC
—	3	1	Angels of the Streets	soc-dr AY
—	2	4	Anything for a Song	mus-dr A
—	—	3	Arnold Affair, The	cri-mel A
1	14	1	Bachelor and the Bobby-Soxer, The	com AY
—	1	8	Backlash	mys-mel A
1	4	3	Barber of Seville, The	mus-dr AY
—	6	1	Bells of San Angelo	mus-wes-c AYC
—	2	6	Beware of Pity	dr A
—	3	2	Big Fix, The	mel AY
3	6	2	Black Gold	dr-c AYC
1	5	8	Black Narcissus	dr-c A
—	1	8	Blackmail	mys-mel A
—	1	4	Blonde Savage	adv AY
—	5	2	Blondie in the Dough	com AYC
—	—	6	Blue Veil, The	dr A
2	5	1	Bob, Son of Battle	dr-c AY
1	12	3	Body and Soul	dr A
—	2	2	Border Feud	wes AY
—	1	2	Bowery Buckaroos	com AYC
—	6	8	Brute Force	cri-mel A
—	1	4	Bulldog Drummond at Bay	mys-mel AYC
—	3	2	Bulldog Drummond Strikes Back	mys-mel AY
—	4	5	Burning Cross, The	dr A
—	2	7	Bury Me Dead	cri-mel A
2	8	4	Captive Heart, The	war-dr AY
—	1	5	Caravan	adv A
—	3	4	Carnival of Sinners	dr A
—	—	3	Case of the Baby Sitter	com A

A	B	C		
2	7	—	Cass Timberlane	nov A
—	10	5	Cheyenne	mus-wes A
—	4	5	Christmas Eve	dr A
—	2	3	Citizen Saint	doc-dr AYC
—	—	3	Code of the Saddle	wes AYC
—	2	2	Colonel Chabert	dr A
—	2	2	Comedy Carnival	com-c A
1	10	3	Copacabana	mus-com A
—	3	8	Corpse Came C.O.D., The	cri-com A
—	4	3	Crimson Key, The	mys-mel A
2	13	4	Crossfire	soc-mel A
—	3	10	Cry Wolf	mys-mel A
1	10	3	Cynthia	com AYC
—	8	6	Dark Passage	nov A
—	1	13	Dear Ruth	com AY
—	8	7	Deep Valley	mel A
—	3	12	Desert Fury	mel-c A
—	2	7	Desire Me	war-dr A
—	3	3	Desperate	cri-mel AY
—	2	6	Devil's Envoys, The	fan A
—	4	3	Dick Tracy Meets Gruesome	mel A
—	3	8	Dick Tracy's Dilemma	cri-mel A
—	8	8	Dishonored Lady	dr A
2	10	6	Down to Earth	mus-fan A
—	4	2	Dragnet	cri-mel AY
—	3	2	Driftwood	dr AYC
—	1	4	Elixir of Love	mus-dr A
1	3	5	Escape Me Never	dr A
—	4	1	Exile, The	hist-dr AY
—	1	6	Exposed	cri-mys AY
—	7	6	Fabulous Dorseys, The	mus-biog AYC
—	4	1	Fabulous Texan, The	mel A
—	1	3	Farewell, My Beautiful Naples	mus-dr A
3	8	4	Fiesta	mus-dr-c AY
—	—	3	Flashing Guns	wes AYC
—	3	4	For the Love of Rusty	dr AYC
—	3	5	Forever Amber	dr-c A
—	6	7	Foxes of Harrow, The	adv A
—	10	3	Frieda	war-dr A
1	4	2	Fugitive, The	dr A
—	13	4	Fun and Fancy Free	mus-car-c AYC
—	3	—	Furia	mel A
—	3	6	Gangster, The	mel A
—	—	6	Gas House Kids Go West	com AY
—	5	5	Gas House Kids in Hollywood	mys-mel AYC
4	7	1	Gentleman's Agreement	dr A
2	14	3	Ghost and Mrs. Muir, The	fan A
—	5	5	Ghost Town Renegades	wes AYC
3	1	1	Girl of the Canal, The	dr AY
—	5	6	Golden Earrings	war-mel A
—	1	3	Great Betrayal, The	doc A
—	4	1	Great Dawn, The	mus-dr A
—	5	5	Green Cockatoo, The	cri-mel A
1	4	7	Green Dolphin Street	dr AY
—	12	2	Green for Danger	mys-mel A
1	7	5	Gunfighters	wes-c A
—	—	—	Hal Roach Comedy Carnival (See Comedy Carnival)	
—	1	3	Hat Box Mystery, The	mys-mel A
—	3	4	Heartaches	mus-mel AYC
—	5	8	Heaven Only Knows	fan A
—	10	5	Her Husband's Affairs	com AY
1	4	—	High Tide	cri-mel A
—	9	3	Hit Parade of 1947	mus-com AY
—	2	2	Hollywood Barn Dance	mus-com AY
—	4	—	Homesteaders of Paradise Valley	wes AYC
—	4	—	Hoppy's Holiday	wes AYC
2	11	3	Hucksters, The	nov A
—	3	8	Hungry Hill	dr A
2	13	3	I Know Where I'm Going	dr A
1	9	4	I Wonder Who's Kissing Her Now	mus-com-c A
—	3	1	In Self Defense	mel A
—	2	1	In the Name of Life	dr A

A	B	C				A	B	C			
—	3	7	Invisible Wall, The	cri-mel A		1	2	—	Road to Rio	mus-com AY	
1	3	3	It Had to be You	com A		—	—	4	Road to the Big House	mel A	
—	7	7	Ivy	mys-mel A		—	3	2	Robin Hood of Texas	mus-wes AYC	
—	4	—	Joe Palooka in the Knockout	mys-mel AY		—	14	3	Romance of Rosy Ridge	mus-dr AY	
—	3	5	Keeper of the Bees	rom AYC		—	9	1	Roosevelt Story, The	doc AY	
—	2	8	Key Witness	cri-mel A		—	3	3	Roses Are Red	cri-mel A	
—	1	4	Killer at Large	cri-mel A		—	3	2	Russian Ballerina	mus-com A	
—	4	1	Killer Dill	cri-com A		—	4	1	Rustlers of Devil's Canyon	wes AYC	
1	5	1	Killer McCoy	mel A		—	1	4	Saddle Pals	mus-com AY	
—	4	4	Kilroy Was Here	com AY		—	5	9	San Quentin	mel A	
2	3	2	King's Jester, The	mel A		—	3	4	Sarge Goes to College	mus-com AY	
3	12	2	Kiss of Death	mys-mel A		—	—	4	Scared to Death	mys-c A	
—	6	3	Lady Surrenders, A	rom A		—	4	—	Schoolgirl Diary	dr AYC	
—	—	4	Land of the Lawless	wes A		—	3	6	Second Chance	mys-mel AY	
—	3	2	Last Frontier Uprising	mus-wes-c AYC		2	11	2	Secret Life of Walter		
—	1	7	Last of the Red Men	nov-c AYC		—	—	—	Mitty, The	mus-com-c AY	
—	4	—	Last Round-Up, The	mus-wes AYC		—	2	2	Sepia Cinderella	mus-com A	
—	—	5	L'Atalante	dr A		—	4	5	Seven Keys to Baldpate	mys AY	
—	—	3	Law Comes to Gunsight	wes AYC		—	1	2	She Returned at Dawn	dr A	
—	1	2	Life Begins Anew	dr A		2	5	4	Shoe Shine	dr A	
4	14	1	Life With Father	com-c AYC		—	5	—	Shop Girls of Paris	dr A	
—	1	4	Linda Be Good	mus-com A		—	5	11	Singapore	mel A	
—	2	4	Little Miss Broadway	com A		—	4	9	Slave Girl	com-c A	
—	5	11	Living in a Big Way	mus-dr A		—	2	1	Smoky River Serenade	mus-wes AYC	
—	2	2	Lone Wolf in London, The	mys-mel A		1	7	5	So Well Remembered	war-dr A	
1	7	5	Long Night, The	dr A		—	7	5	Something in the Wind	mus-com A	
—	3	4	Lost Moment, The	dr A		—	3	4	Son of Rusty, The	dr AYC	
—	4	1	Louisiana	mus-biog AY		3	7	7	Song of Love	mus-dr AY	
—	3	4	Love from a Stranger	cri-mel A		2	4	—	Song of My Heart	mus-dr AYC	
—	8	5	Love Laughs at Andy Hardy	mus-com AY		—	6	6	Song of the Thin Man	mys-mel A	
2	10	5	Lured	cri-mel A		—	1	3	Song of the Wasteland	mus-wes AYC	
—	7	6	Magic Town	dr A		—	7	4	Spirit of West Point, The	dr AYC	
—	9	3	Man About Town	com A		—	2	4	Spoilers of the North	mel A	
—	1	2	Man Within, The	mel-c A		—	4	3	Sport of Kings	dr AYC	
—	2	4	Marauders, The	wes AYC		—	3	1	Springtime in the Sierras	mus-wes-c AY	
—	1	3	Marco Visconti	adv A		—	—	6	Stepchild	soc-dr A	
—	3	2	Marshall of Cripple Creek	wes AYC		—	1	7	Stork Bites Man	com AY	
—	8	5	Merton of the Movies	com A		—	2	3	Sweet Genevieve	mus-com A	
—	—	4	Midnight in Paris	cri-mys A		—	—	3	Swing the Western Way	mus-wes AYC	
—	1	4	Millerson Case, The	cri-mel A		—	7	4	Swordsman, The	dr-c AYC	
5	12	1	Miracle on 34th Street	com AYC		1	6	3	Tawny Pipit, The	com AYC	
—	9	6	Moss Rose	mys-mel A		—	3	9	That Hagen Girl	dr A	
—	10	4	Mother Wore Tights	mus-com-c AY		—	1	4	That's My Gal	mus-com-c A	
—	2	3	Mourning Becomes Electra	dr A		—	11	9	They Won't Believe Me	mel A	
—	4	3	Murderer Lives at Number			1	4	1	This Time for Keeps	mus-com-c A	
—	—	21, The		mys-mel A		—	6	1	Thunder Mountain	wes AYC	
—	1	5	My Father's House	doc-dr A		—	3	2	Too Many Winners	cri-mel A	
—	6	6	New Orleans	mus-dr A		—	6	3	Trespasser, The	mys-mel A	
—	4	3	Newshounds	cri-com AY		—	7	11	Trouble With Women, The	com A	
—	3	3	Nicholas Nickleby	nov AY		—	—	4	Twins	com A	
—	2	2	Night Song	mus-dr A		—	2	3	Two Anonymous Letters	war-dr A	
—	5	10	Nightmare Alley	mel A		—	7	6	Unconquered	hist-c A	
—	7	6	Northwest Outpost	mus-rom A		—	6	1	Under the Tonto Rim	wes AYC	
—	3	1	On the Old Spanish Trail	mus-wes-c AYC		1	7	5	Unfaithful, The	dr A	
—	—	4	Oregon Trail Scouts	wes AYC		2	9	5	Unfinished Dance, The	mus-dr-c AY	
1	9	9	Other Love, The	mus-dr A		—	7	4	Unsuspected, The	mys-mel A	
—	5	4	Out of the Blue	com A		—	3	5	Untamed Fury	mel A	
—	2	2	Out of the Past	mys-mel A		—	2	7	Upturned Glass, The	cri-dr A	
—	—	4	Over the Sante Fe Trail	mus-wes AYC		—	—	5	Vacation Days	mus-wes AYC	
—	4	—	Pacific Adventure	dr AYC		1	11	3	Variety Girl	mus-com-c AY	
—	2	5	Patient Vanishes, The	cri-mel A		—	5	5	Vigilantes Return, The	wes-c AYC	
2	12	1	Perils of Pauline	mus-com-c AY		—	3	4	Vow, The	dr A	
—	2	5	Philo Vance Returns	mys-mel A		—	—	3	We Lived Through Buchenwald	war-doc A	
—	—	6	Philo Vance's Gamble	mys-mel A		—	—	2	Web, The	cri-mel A	
—	4	1	Philo Vance's Secret Mission	cri-mel AY		2	13	2	Web of Danger	mel A	
—	1	5	Pioneer Justice	wes AYC		—	2	6	Welcome Stranger	mus-com AY	
—	1	3	Pirates of Monterey	mel-c A		2	15	2	West to Glory	mus-wes AYC	
1	7	8	Possessed	dr A		—	2	2	When a Girl's Beautiful	mus-com A	
—	1	7	Pretender, The	cri-mel AY		—	6	1	Where There's Life	com A	
—	2	2	Queen's Necklace, The	hist-dr A		—	3	—	White Stallion	wes AYC	
—	4	4	Railroaded	cri-mel AY		—	2	2	Wild Frontier, The	wes AYC	
—	1	2	Rainbow over the Rockies	mus-wes AYC		—	7	13	Wild Harvest	mel A	
—	5	2	Red Stallion, The	dr-c AYC		—	4	2	Winter Wonderland	rom A	
—	8	8	Repeat Performance	fan A		—	7	3	Wistful Widow of Wagon Gap, The	com A	
—	2	3	Return of Rin Tin Tin	dr-c YC		—	3	11	Woman on the Beach, The	dr A	
—	1	4	Return of the Lash	wes AYC		—	6	3	Wyoming	wes AYC	
12	2	4	Ride the Pink Horse!	cri-mel A		—	—	5	Zero de Conduite	dr A	
—	6	5	Riff-Raff	mel A		—	—	3	Zygmunt Kolosowski	war-dr A	
—	3	—	Road Home, The	war-dr A							

The Consumers' Observation Post

(Continued from page 4)

in hard water. The "magical" effect of "Solium" is not noticeable under ordinary illumination with electric lights. The principle is new only in its application, for, reports one of CR's consultants, a patented process for making cellulose acetate rayon whiter has operated on this principle for about 10 years.

* * *

THE MOST INEXPENSIVE FOODS for basic year-round menus are white potatoes, whole-wheat bread, rolled oats, beef liver and pig liver, pea beans, rutabagas, carrots by the pound, spinach, and milk, according to Professor Mabel Rollins of Cornell University. In a study of prices made over a two-year period, Professor Rollins found that the foods listed were nearly always available, fluctuated little in price, and were comparatively inexpensive in relation to their content of dietary essentials. Also recommended from the standpoint of price and nutrition are Hubbard squash, sweet potatoes, green cabbage, and kidneys. Whether members of the family can be persuaded to eat certain of the items in question to help keep down the family's expenditures for food is a problem for individual solution.

* * *

PETROLEUM BASE HYDRAULIC FLUID, aviation-type, listed among the surplus commodities by the War Assets Administration should be used with caution, if at all. Some eight million gallons have been put up for sale which include oil of 18 different specifications. Both Chevrolet and International Harvester warn that the use of these fluids in their brake systems may affect rubber parts such as cylinder cups and the inner lining of brake hose, resulting in brake failures and other damage.

* * *

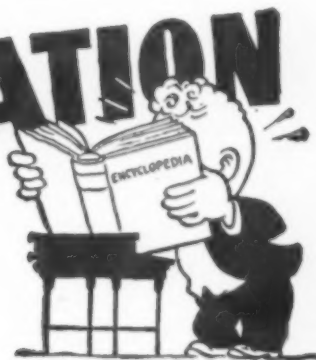
STAR SAPPHIRES AND STAR RUBIES, which are considered to be among the finest of natural stones, can now be produced synthetically, reports Chemical

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INFORMATION



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and Engineering News. High-grade synthetic stones which were in demand for industrial purposes during World War II have been developed by Linde Air Products Co. of New York City, a unit of Union Carbide and Carbon Corp., by a complex process based on feeding finely-divided alumina into a small oxy-hydrogen burner. The cost of the synthetic stones is reported to range from \$10 to \$30 per carat.

* * *

THE HIGH PRICE OF BUTTER is holding down sales. With butter around 90 cents a pound, many a thrifty homemaker is feeding her family margarine at 40 cents a pound. Consumer resistance, reports Business Week, is giving the butter industry considerable cause for worry, for the annual consumption of butter—which was 17.9 pounds per capita in pre-war days—is now only 11.3 pounds. The American Dairy Association is putting on an advertising campaign to get people to eat more butter, but a substantial drop in price would be a more effective way to increase consumption.

* * *

FUEL COSTS can be reduced appreciably if suggestions made by Dr. Raymond C. Johnson of the Anthracite Institute Research Laboratory are followed.

(1) Maintain a deep fuel bed. (2) Control heat entirely by the dampers—not by the amount of coal put on the fire, and by operating the dampers properly. In cold weather, shake only until the first red glow appears in the ashpit. In mild weather and in banking the fire, shake only enough to make room for needed coal. This advice seems good, except that when clinkers (or extreme cold weather) are a problem, it may be necessary to operate with a thinner fuel bed (see CR's April 1947 Bulletin) in severe weather.

* * *

NEW OR NEWLY AVAILABLE: Nimrod Pipeliter (Ward-Nimrod Co., 2968 Jessamine St., Cincinnati 25), widely advertised at \$3.50, is a well-made lighter of lightweight metal. It has the disadvantage of a too-small fuel capacity, requiring frequent filling (at least once a day), because the large flame necessary for lighting a pipe and the length of time it must burn to light a pipe properly cause quick exhaustion of the fuel supply. When the amount of fuel was adequate, the device was found fairly satisfactory, but when the amount remaining was low, the flame had a tendency to go out as the smoker drew on the pipe to light his tobacco. We believe that for most men, the trouble involved in having to refill the Pipeliter frequently would probably rule out the gadget as a really satisfactory substitute for matches.

Consumers' Research, Inc.

Washington, N. J.

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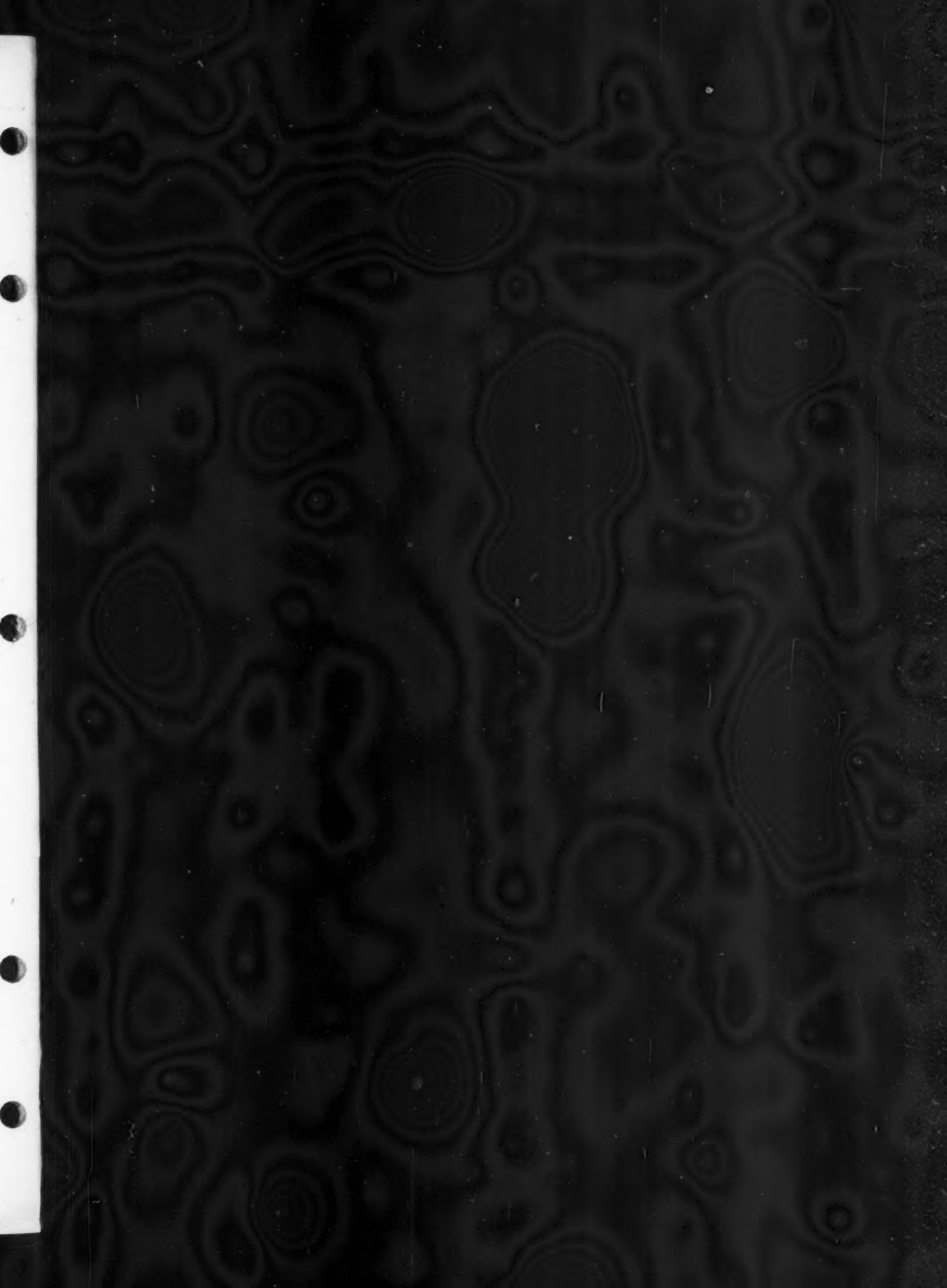
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PHONOGRAPH RECORDS



By Walter F. Grueninger

Please Note: Prices quoted do not include taxes. In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

ORCHESTRA

Beecham Favorites. London Philharmonic Orchestra under Beecham. 6 sides, RCA Victor Set 1141. \$4. The music falls short of greatness, but it is difficult to imagine a more thrilling performance—from Berlioz's *The Trojans*, "Royal Hunt and Storm," and "March"; from Borodin's *Prince Igor*, the "Overture." Recording is full bodied, transparent, though not as wide-ranged as new Decca imports.

Interpretation AA
Fidelity of Recording AA

Beethoven: Symphony No. 3 ("Eroica"). Boston Symphony Orchestra under Koussevitzky. 12 sides, RCA Victor Set DV 8. \$13. One of the greatest symphonies. Virile performance exhibiting orchestra virtuosity at its finest. Admirable sonority with reverberation noticeable only in heaviest chords, not objectionable. Pressed on plastic. Compared to my preferred set heretofore, Toscanini-conducted RCA Victor 765, I find the Bostonians' recording more resonant, less nasal, wider ranged, not punctuated by studio audience coughs. The performance is less fierce though not lacking in drive. Overall, Koussevitzky, though I shall not part with Toscanini!

Interpretation AA
Fidelity of Recording AA

Purcell: Abdelazer Suite. Vox Chamber Orchestra under Fendler. 6 sides, Vox Set 199. \$3.75. Composed in 1695 as accompanying music for the play, "Abdelazer." Interpretation possesses nearly all the necessary breadth and brawn, but limited range recording and very noisy surfaces are heavy liabilities.

Interpretation A
Fidelity of Recording B

Ravel: Bolero. Paris Conservatory Orchestra under Münch. 4 sides, Decca Set EDA 33. \$5. This English import is my choice of the many *Bolero* recordings because of the slow tempo preferred by Ravel, the excellence of orchestra and recording. Those wishing a faster tempo will best turn to Kostelanetz's Columbia Set X 257, \$3.01.

Interpretation AA
Fidelity of Recording AA

Schubert: Symphony No. 8 in B Minor ("Unfinished"). Philadelphia Orchestra under Walter. 6 sides, Columbia Set 699. \$4.60. Melodious, standard work. Walter allows the music to speak for itself. Wide range recording. Overall, tops its many competitors.

Interpretation AA
Fidelity of Recording AA

CHAMBER AND INSTRUMENTAL

Beethoven: Quartet No. 7 ("Rasoumovsky No. 1")—Op. 59, No. 1) (9 sides) and Mozart: Quartet 17—Minuet only (1 side). Paganini Quartet. RCA Victor Set 1151. \$6. Lengthy but fine pastoral work. Smooth, rich-sounding performance. Elegant recording. Just tops competitive Columbia Set 543 (Busch Quartet) which is more coarsely performed and well recorded.

Interpretation AA
Fidelity of Recording AA

Beethoven: Quartet No. 8 ("Rasoumovsky No. 2")—Op. 59, No. 2). Paganini Quartet. 8 sides, RCA Victor Set 1152. \$5. Agitated, turbulent with a famous slow movement inspired by a summer, starlit sky. Assured performance and extraordinary recording though my surfaces are noisy. Formidable competition from the Budapest Quartet, however, whose phenomenal performance in Victor Set 340 is nearly as well recorded on more quiet surfaces.

Interpretation A
Fidelity of Recording AA

Beethoven: Quartet No. 9 ("Rasoumovsky No. 3")—Op. 59, No. 3) (7 sides) and Mozart: Eine Kleine Nachtmusik—Minuetto only (1 side). Paganini Quartet. RCA Victor Set

1153. \$5. Two relatively weak movements here—the third and fourth. Understanding performance for a year-old ensemble, remarkably recorded. Some surface noise but not nearly so much as in my pressing of competitive Columbia Set 510 (Budapest Quartet) which offers a sensitive performance roughly recorded.

Interpretation A
Fidelity of Recording AA

Selections from the Music of Schumann, Brahms, and Liszt. Rubinstein (piano). 6 sides, RCA Victor Set 1149. \$4. Noisy surfaces detract from the enjoyment of my set which includes "Träumerei," an "Arabesque," "Hungarian Dance No. 4," Schumann's heartfelt "Widmung" and the glorified Liszt arrangement of it—music played by Rubinstein for the film, "Song of Love." Most effectively performed are the bravura numbers.

Interpretation A
Fidelity of Recording A

VOCAL

Italian Operatic Duets. Jan Peerce (tenor), Leonard Warren (baritone). 4 sides, RCA Victor Set 1156. \$3. Duets from *La Boheme* and *La Forza del Destino* sung loudly but with little subtlety. Recorded at a high volume level.

Interpretation B
Fidelity of Recording A

Lane: Finian's Rainbow. Logan, Richards, Wayne, etc. (singers). 12 sides, Columbia Set 686. \$6.41. A successful Broadway show sounds dull because of mediocre singing.

Interpretation B
Fidelity of Recording A

Mendelssohn: Elijah. Baillie, Ripley, Johnston, Williams (singers) with the Huddersfield Choral Society and the Liverpool Philharmonic Orchestra under Sargent. 32 sides, Columbia Set 715. \$22.70. The oratorio is nearly on the level, in public favor, with Handel's *The Messiah* which this group recorded in the highly recommended Columbia Set 666. Thirty hours went into recording sessions. Over 150 sides were cut to obtain the approved 32. Magnificent performance and recording. The text cannot be understood at all times but Columbia's booklet fills that gap.

Interpretation AA
Fidelity of Recording AA

Mozart Operatic Arias. Eleanor Steber (soprano). 4 sides, RCA Victor 1157. \$3. Martern Aller Arten (in English) "Non so Più," "Deh Vieni," are included. Miss Steber tries so very hard I cannot relax. Polished singing if not perfect. Particularly weak high notes. Small orchestra. Well recorded.

Interpretation A
Fidelity of Recording AA

Romantic Arias from French Operas. Raoul Jobin (tenor). 6 sides, Columbia Set 696. \$4.41. Arias from Meyerbeer, Berlioz, Massenet, Gounod capably sung and well recorded.

Interpretation A
Fidelity of Recording AA

Songs from My Wild Irish Rose. Dennis Day (tenor). 8 sides, RCA Victor Set P 191. \$4. Featured in the film about Chauncey Olcott—"My Nellie's Blue Eyes," "Mother Ma-chree," etc. Routine performance.

Interpretation B
Fidelity of Recording AA

Wagnerian Excerpts. Torsten Ralf (tenor). 8 sides, Columbia Set 634. \$5.61. Scenes from *Tannhauser*, *Parsifal*, *Die Meistersinger*, *Lohengrin* sung by the Met's Swedish tenor whose dry, lyric voice does not enchant me though his style is commendable. Excellent orchestral background.

Interpretation B
Fidelity of Recording AA

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